Substance Use Disorders

Manual for Paramedical Personnel

Editors
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Substance Use Disorders

A Manual for Paramedical Personnel

National Drug Dependence Treatment Centre,
All India Institute of Medical Sciences, New Delhi

Supported by
World Health Organization (India)
and
Ministry of Health & Family Welfare,
Government of India

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Designed & Printed at

Public Printing (Delhi) Service,
C-80, Okhla Industrial Area,
Phase-I, New Delhi-110020

Print Edition
February, 2013

Published by :
National Drug Dependence Treatment Centre
All India Institute of Medical Sciences
New Delhi

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सत्यमेव जयते

संयुक्त सचिव
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JOINT SECRETARY
MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA
NIRMAN BHAVAN, NEW DELHI-110108

4 August 2009

Drug addiction and alcoholism is a problem affecting all sections of the society irrespective of the economic, social or education levels of the victim. Fortunately there is a growing concern among the society and the Government to tackle this problem. The Ministry of Health and Family Welfare has been running a program on Drug De-addition through a number of de-addition centres established in a number of district hospital and medical colleges etc.

It is experienced that there are adequate medicines/therapies and doctors and the conventional health personnel available for treating the addicts. There are enough training materials available for these conventional medical professionals. However, it is realized that the efforts of medical professionals i.e. doctors alone do not suffice. Proactive participation of paramedics is equally important for achieving desired result. The paramedical personnel viz. the health workers and health volunteers have a vital role to play in sensitizing the community, increasing awareness, motivate victims to seek treatment and ensure compliance and provide the much important after care. Thus for any de-addiction program to succeed this important link needs to be strengthened.

Training material for the physicians and the nursing personnel has been available. The need for having a standardized training material in the form of a manual for the paramedicals was being felt increasingly. The initiative taken by the National Drug Dependence Treatment Centre (NDDDTC), All India Institute of Medical Sciences, Delhi in this regard and bringing out this precious manual "Substance Use Disorders: A manual for Paramedical Staff" is a welcome step. I am sure that this will meet the much awaited need of training materials of health staff like ASHA, Anganwadi workers and would go a long way to enhance their skills.

The team of professional at the NDDTC, AIIMS deserves congratulations for all the efforts they have made in bringing out this Manual.

(Debasish Panda)
Joint Secretary

Preface

Substance use disorder is best conceptualized as a chronic, non-communicable disease. Treatment of such a condition requires a multi-disciplinary effort. While, physicians play the primary role in diagnosis and treatment, various other paramedical professionals – the health workers and health volunteers – can also play a vital role in identifying, motivating and referring a person for help. Under the National Rural Health Mission also, a very important role for the health workers and health volunteers has been envisaged.

For any health programme to succeed, it would be necessary to have these health workers trained who could act as a bridge between the health services and the beneficiary community. It has increasingly been felt that it would not be enough to train and develop just the conventional medical professionals i.e. the doctors and the nurses.

The National Drug Dependence Treatment Centre (NDDTC), AIIMS, with the support of Ministry of Health and Family Welfare (Drug De-addiction Programme-DDAP), Government of India has been involved in drug demand reduction activities by providing treatment services and developing a cadre of trained human resources in the country. NDDTC, AIIMS has developed a series of resource materials for various categories of staff namely the doctors and nurses in the past. However, resource materials for training of paramedical professionals remain scarce.

Thus, we have taken the initiative to develop this manual and testing it in the field. This manual will go a long way in helping resource persons train various categories of health staff such as the heath workers, *Anganwadi* workers, ASHA etc. The key challenge would be to put this manual to use by conducting and managing training programmes for paramedical staff and evaluating the impact thereof. A draft version of this manual has already been shared with the paramedical staff in one of our district based community centre and feed-back from them has been obtained.

I am sure that like the previous publications, this manual too would prove itself to be immensely useful tool for all the professional and paraprofessional who seek to provide care and treatment for the substance use disorders in non-specialized settings and community settings alike.

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Acknowledgements

No work of any merit is possible without contributions from several ends. We wish to express our sincere gratitude to all those who made this work possible.

First and foremost, we would like to express our sincere thanks to the World Health Organisation (India) for the generous funding support to develop this manual. We also acknowledge the Drug De-Addiction Programme (DDAP) at the Ministry of Health and Family Welfare, Government of India, for their support and encouragement. A special mention has to be made of Joint Secretary, Mr. Debashish Panda for his interest and involvement. We would like to acknowledge the financial support extended by Ministry of Finance, Department of Revenue for print and distribution of this manual.

Acknowledgements are also due to the Director and the Dean, All India Institute of Medical Sciences for permitting us to carry out this work.

We also wish to express our deep appreciation and gratitude to Professor Rajat Ray, Chief, National Drug Dependence Treatment Centre (NDDTC) for being the guide and the source of encouragement.

We are grateful to all the contributors who undertook the mission of bringing this manual out on a war footing. Special thanks are due to each and every one of them.

Rakesh Lal
Atul Ambekar

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Executive Summary

In the area of Substance Use Disorders a drug or a substance is any chemical that, upon consumption, leads to changes in the functioning of human mind and more specifically leads to a state of intoxication. A wide variety of drugs are available and are abused. ***Alcohol*** is one of the oldest and most popular psychotropic substances known. It is a brain depressant and its effects on the user depend on the level of alcohol in the blood. Alcoholic drinks available in India can be divided into Indian Made Foreign Liquor (IMFL), Indian made country liquor (IMCL), and home brewed country liquor (HBCL). ***Opioids*** are either derivates of the Opium plant or they have a similar action on the body like Opium. Heroin, popularly called 'smack' or 'brown sugar' is one of the very common forms used. ***Cannabis*** is available in various forms viz: *Bhang*, *Ganja* and *Charas*.. ***Nicotine*** the main active chemical in Tobacco is yet another legal and popular substance. ***Sedative/ Hypnotics*** are medications that are prescribed by doctors to reduce anxiety and produce sleep and are also abusable. ***Cocaine and other Stimulants*** are not widely available in India. ***Inhalants*** are mostly petroleum products, the use of which is growing, especially among children and adolescents. However, it must be remembered that not all use of substance is pathological. Distinction must be made between "Use", "Abuse", "Misuse", and "Dependence", which are all distinctly defined terms. A variety of biological factors as well as environmental factors interact together to give rise to substance dependence.

Substance use has widespread consequences on the user, his family and the society at large. **Physical (health) consequences** of drug use are numerous and differ from substance to substance. Economic loss due to money spent on substances, loss in productivity, conflict with family members, crime, stigma and discrimination are some of the major **Social / familial / financial / legal consequences.**

Assessment of Substance Use Disorders is carried out at various stages: before, during and after the intervention. Obtaining a detailed history and conducting examination are the key methods for assessment. However some structured tools and laboratory investigations are also available. It is important that during the process of assessment one should express a warm concern, be non directive, non judgmental and supportive.

Role of paramedical staff

As the understanding of Substance Use Disorders has grown over the years, it has increasingly being recognized that the effective management of the drug use problem requires a multi-pronged intervention strategy and by multiple persons. A comprehensive drug dependence treatment plan would involve medical and para-medical staff with different orientation and training backgrounds. These para-medical professionals include counsellor, medical social worker, multi-purpose worker, primary health workers, ASHA (Accredited Social Health Activist), Anganwadi workers and ANM etc. The possible ways in which para-medical professionals could contribute to treatment of drug use related problems are: ***Early identification*** (of substance users in their locality), ***Overcoming the barriers*** (like lack of awareness, lack of motivation, apprehensions due to associated stigma and myths etc.), ***providing Brief interventions***

(simple advice) ***and After care*** (ensure follow-up and adherence to treatment and identify and prevent impending relapse).

It is important to remember that *most patients would not require admission to a hospital*. The para-medical staff could contribute to the patient care in all the settings: OPD, in-patient, community clinic and even in natural surrounding (home-based care). The most important role of paramedical staff is to act as a bridge between the health care services and the community that they serve. The paramedical staff can be of vital importance in prevention and treatment of substance use disorders and can be the pillars of all community based de-addiction programmes.

SUBSTANCE USE DISORDERS: AN OVERVIEW

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Types of drugs

A drug[1], broadly speaking, is any chemical substance that, when absorbed into the body of a living organism, alters normal bodily function. In the area of Substance Use Disorders a drug or a substance is any chemical that, upon consumption, leads to changes in the functioning of human mind and more specifically leads to a state of intoxication.

Some of these substances, like Alcoholic beverages and Nicotine (Tobacco), are legally allowed for trade and consumption in India (albeit with some regulations). These are called **Licit** (or Legal) substances. The trade and consumption of many other substances are strictly prohibited and are therefore called **Illicit** (or Illegal) substances.

The World Health Organization (WHO) lists substance use disorders for the following classes of substances.

Substances listed by WHO

- **Alcohol**
- **Opioids**
- **Cannabis**
- **Sedative Hypnotics**
- **Cocaine**
- Other **stimulants**, including caffeine
- **Hallucinogens**
- **Tobacco**
- **Volatile solvents**

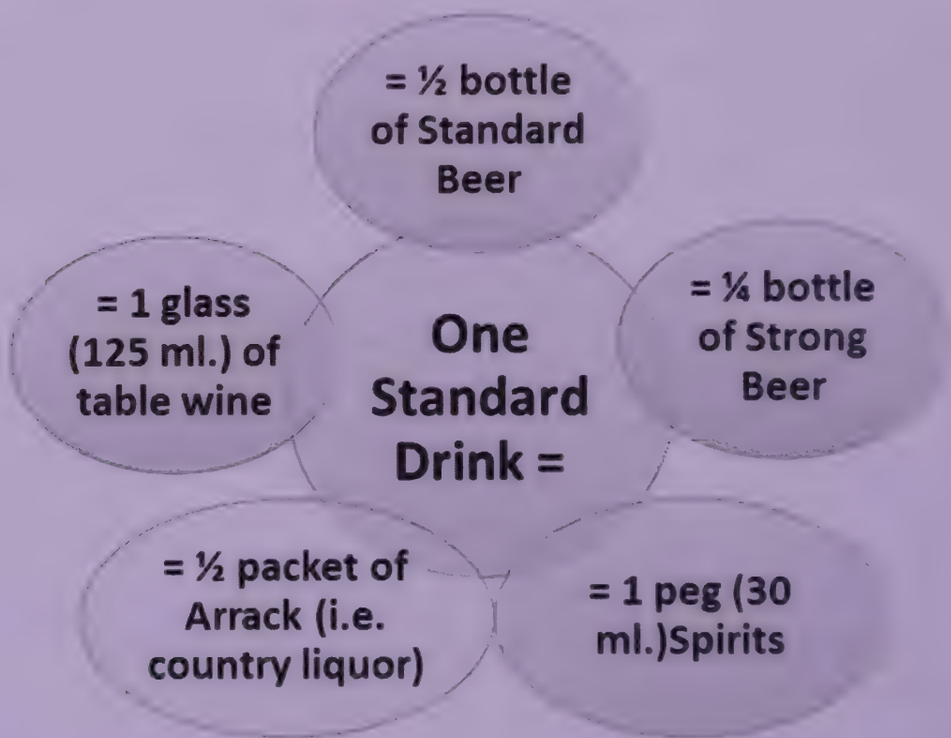
A brief description of common substances of use is as follows.

Alcohol:

One of the oldest and most popular psychotropic substance / drug known to mankind is alcohol. In the ancient Indian texts one finds mention of Madira and Sura, which are believed to be alcoholic preparations.

[1] Throughout this manual, terms 'drug' and 'substance' have been used interchangeably.

Alcoholic drinks are available in various forms. 'Distilled spirits' or 'IMFL' (Indian Made Foreign Liquors) such as whisky, brandy, rum, vodka and gin contain about 42% alcohol in India, whereas beer usually contains 4 to 8%. Wines contain approximately 12% alcohol. Due to these variations, alcoholic drinks are measured in "Standard units", one standard unit of alcohol is 10ml of absolute alcohol. The rule of thumb for comparison is provided in the adjoining illustration.



The effects of alcohol on the user depends on the level of alcohol in the blood (called: blood alcohol concentration or BAC) and are as follows

BAC in mg/dl	Effects
Around 40 to 80	Feeling of happiness, feeling of relaxation and talking freely, some clumsy movements of hands and legs, reduced alertness but user believes himself to be alert.
More than 80	Noisy, moody, impaired judgment, impaired driving ability
At 100-200	Blurred vision, unsteady gait, talking loudly, slurred speech, quarrelsome, aggressive, gross motor in-coordination.
At 200-300	Inability to remember the experience – blackout.
More than 300	Coma and in higher levels even death

Alcoholic drinks available in India can be divided into Indian Made Foreign Liquor (IMFL), which are drinks made in India according to specifications of International brands; Indian made country liquor (IMCL), which are drinks made in India with government license; and home brewed country liquor (HBCL), which are illegally brewed. Most cases of toxicity develop due to other chemicals substances added to such home brewed liquor to make them stronger.

Opioids:

Opium is the prototype opioid which is derived from the poppy plant. An opioid is any drug that acts like opium in the human body (described below). They may be - Naturally occurring substances, such as morphine; semi-synthetics such as heroin, oxycodone that are produced by modifying natural substances and pure synthetics such as methadone that are not produced from opium but act just like opium on the human brain. When given to a subject who has not previously experienced the effects of the drug, opioids produce an unpleasant feeling.

However on continued use, injecting heroin or morphine produces a short lived (less than a minute) intense experience -"rush". It is described as a state of profound happiness. There is also pain relief due to inability to feel any pain (opioids are used as medications for pain-relief for this property) and a dreamlike state characterized by decreased responsiveness to the environment.

Heroin, popularly called 'smack' or 'brown sugar' is one of the very common forms to be used. Heroin may be smoked, chased (inhaled) or injected (intramuscular or intravenous). 'Chasing' (inhaling the vapors emanating from a heated metallic foil) is the commonest mode of heroin use in India. Several other opioids that are used as medications (for pain relief) are also abused. Common among these are codeine cough syrups, morphine and pentazocine injections, dextropropoxyphene capsules and buprenorphine tablets / injections.

Cannabis:

Cannabis is derived from the plant cannabis sativa, which grows wild all around the world including India. At low dose, cannabis causes a state of well being (high) and a dreamy, state of enjoyment. This is generally followed by a period of drowsiness. Even relatively modest amounts of cannabis can impair coordination and make the operation of heavy machinery hazardous. Perceptual and sensory distortions also occur. Subjective sense of time seems to be much slower than it actually is. At higher doses confusion and mental / behavioral problems may occur.

Cannabis is available in various forms vis: *Bhang*- paste of leaves of the plant or dried leaves, *Ganja* – dried flowering stem of the plant and *Charas* or hashish – extracted from the resin covering the plant. It can be smoked in cigarettes, or in clay pipes (most common method in religious settings and rural areas) or in water pipes like the traditional hookah. *Bhang*, which is used in various religious festivals, is legal in India. *Charas* and *Ganja* which are also obtained from the same cannabis plant are illegal.

Nicotine:

Nicotine the main active chemical in Tobacco is yet another legal and popular substance the world over. Nicotine generally causes heightened alertness and improved functioning in continuous repetitive tasks. Users also report relaxation and decrease in fatigue with smoking and irritability, restlessness, anger and frustration with difficulty in concentration and sleep while trying to leave.

Tobacco, the commonest substance of use in India, is legally and socially sanctioned and used in a wide variety of ways including smoking, chewing, applying to gums, sucking and gargling.

Sedative/ Hypnotics:

These are medications that are prescribed by doctors to reduce anxiety and produce sleep. They are also abusable because of their easy availability and cheap price. Though detail discussion is outside the scope of this chapter, certain medications like Diazepam, Nitrazepam and Pheniramine are widely used. These may be used either in tablet preparation, as injections or as cough syrups.

Cocaine and other Stimulants:

Cocaine, a common substance in Americas and Europe, is extracted from the leaves of a plant that grows widely in Latin American countries. As of now, it is not widely available in India. It is generally snorted. Its use cause a short lived sensation (7 to 10 minutes) of "rush" which is felt intensely pleasurable to the user. Therefore it is not generally taken continuously but in "binges" or "runs" where it is taken every thirty minutes to few hours. There are some other stimulants called **Amphetamine Type Stimulants (ATS).** These cause activation of the brain thereby increasing alertness, producing euphoria, improving performance and decreasing fatigue.

Hallucinogens:

These are also called **Psychedelics**. These are a group of various drugs that have the common property to alter how a person sees or hears things (i.e. produce hallucinations).

Inhalants:

These are substances that give vapors without heating. They are mostly petroleum products: glue, thinners, cleaners, solvents etc. The vapors are "huffed", sniffed or "Bagged" (re-breathing from a bag). Their use also produces a rush and sense of wellbeing and an urge to reuse after only five to six minutes. On regular use however they are associated with brain damage and multiple liver and lung problems. Their use is growing especially among children and adolescents.

Injecting Drug Use (IDU): A special mention needs to be made about this pattern of drug use whereby the users inject themselves with drugs, mostly Opioids with or without Sedative/Hypnotics (in India). Apart from the risk inherent to the substance used, injecting drug use poses additional risks such as injection-site infection, thrombosis (vessel gets clotted), skin necrosis (Skin becomes dead and falls off), and spread of various infections, most notable HIV (Human Immune-Deficiency Virus).

Important concepts / definitions

Various terms have been used to describe the phenomenon of substance use. These include terms such as "Use", "Abuse", "Misuse", "Dependence" etc.

Use: Use is simply the ingestion of alcohol or other drugs **without experiencing any negative consequences.** It may be **social use**, like in parties; **recreational or experimental use**, **dietary practice** or may be **religious ritual**.

Example: If a student had drank beer at a party and his parents had not found out we could say he had USED alcohol.

Misuse: When a person experiences negative consequence from the use of alcohol or other drugs it is clearly misuse.

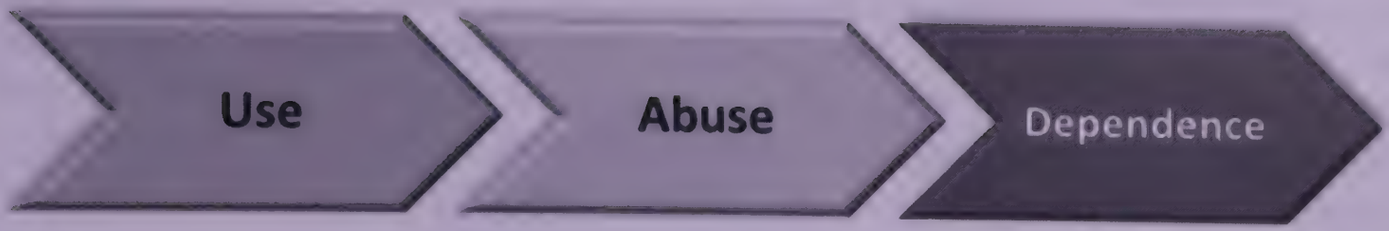
Example: A 40-year old man uses alcohol occasionally, his boss throws a party and the man drinks more than usual and on the way home he is arrested by police. This man has clearly misused alcohol.

Abuse: Abuse is a maladaptive pattern of use resulting in physical, social, legal harm or continued use in spite of negative consequences.

Example: The same 40-year old man continues drinking alcohol even after the incident and continues to experience negative consequences.

Dependence: A cluster of physiological, behavioural and cognitive phenomena in which use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value. The term 'dependence' has been fully described elsewhere in this manual.

Thus, the stages of Use, Abuse and Dependence on a symptom can be seen as a pattern of substance use in increasing order of severity (see illustration).



Common substances used in India

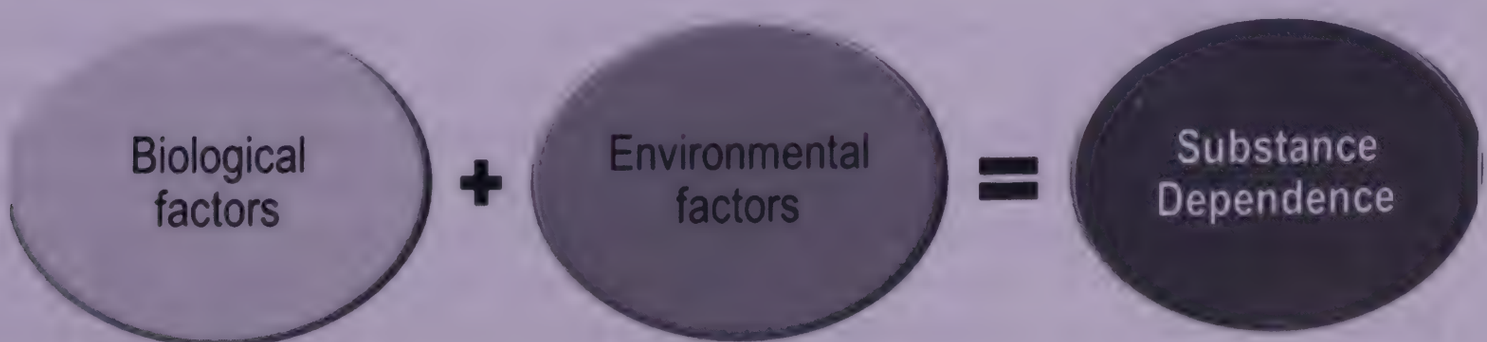
Tobacco, alcohol, cannabis, opium and heroin are the major drugs of abuse in the country. The following table gives the estimate of various substance users in the country.

Substance used	Percentage of males who are 'Current Users' i.e. used the substance in the last month (in %)	Estimates of Number of Users in the country (in Lakhs)	Dependent users in the country (requiring urgent treatment, in Lakhs)
Tobacco:	55.8	1628	--
Alcohol:	21	620	105
Cannabis:	3	87	23
Opiates:	0.7	20	5

It must be remembered that India being a vast country, has a lot of variation in the substance use pattern. However in general, drug abuse is seen in both rural and urban parts of India. Mostly young adult males are affected by substance use. However a small minority of women also indulges in substance use. Unfortunately, many substance users do not seek treatment.

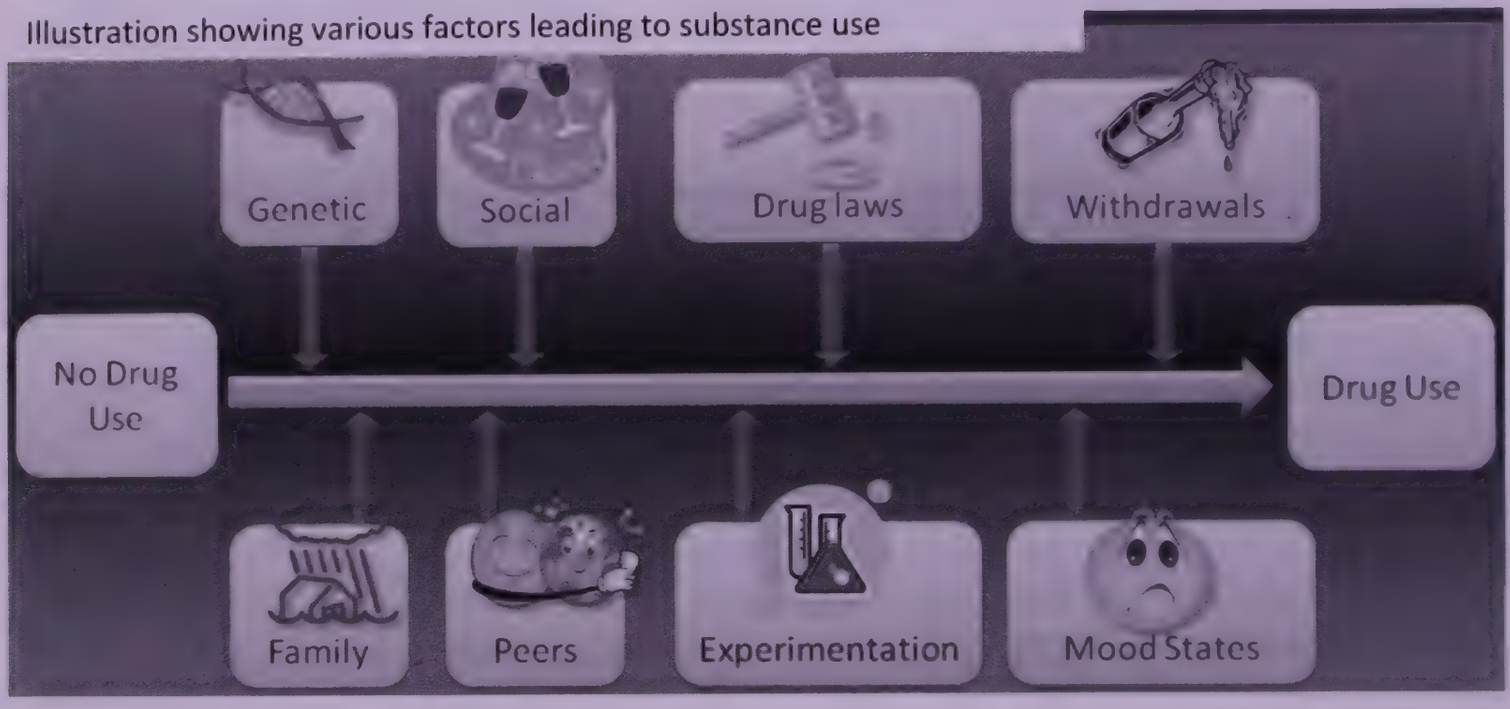
Causes of substance abuse and dependence

There is no simple answer to the question - "why people take drugs?" It is safe to say that there are some biological factors (factors inside the individual who is using the substance) as well as some factors in the environment which interact together to give rise to substance dependence.



Brain researchers have found a pleasure centre in the brain, which becomes activated when 'good' (i.e. likable) things like food, sex, music comes our way. It has been shown that drug use stimulates the same pleasure centre and therefore is felt by the user as a highly satisfying and rewarding experience, resulting in repeated use. Availability, social sanction and peer pressure of drug use are the chief drug related factors that promote initiation and continuation of use. Many drug users also try to counteract their "painful feelings" by taking drugs.

Illustration showing various factors leading to substance use



Consequences of Substance Use and Dependence

Substance use has widespread consequences on the user, his family and the society at large.

- **Physical (health) consequences:** Physical complications of drug use are numerous and differ from substance to substance. In general any drug harms the body in acute use by intoxication and by overdose toxicity. Chronic (long-term) use causes harm to almost all organ systems of the human body. Jaundice and liver-diseases (alcohol), dementia/loss of memory (alcohol), heart problems (tobacco and alcohol), cancer (tobacco and alcohol), lung diseases (tobacco), viral hepatitis (IDU), HIV (IDU), psychiatric illness (most drugs) represent only a tiny fraction of the list. Even sudden

stoppage of drugs by a dependent user can cause severe physical symptoms in the withdrawal state, which sometimes may be fatal.

Social / familial / financial consequences: It must be remembered that the segment of the population, which most commonly is affected by the substance use problems, is young adult males, who are most productive members of any society. Apart from the direct economic loss of money spent on substances, substance users face various indirect monetary loss due to loss in productivity, absenteeism from work, being expelled from job etc. Adolescent users drop out from school, thereby curtailing all future earning capabilities. Multiple physical complication and recurrent hospitalizations drain money. Stigma of substance use prevents them from getting job even when they are trying to quit substance.

Family members of substance users bear the major burden. Apart from money being diverted from family fund for sustaining substance use behavior, the whole family suffers from the stigma of drug use and discrimination. On a more personal level substance users are often in conflict with family members. In India, as most users are males and dominant members of the family, women suffer silently from marital physical abuse, sex without consent and risk of HIV infection secondarily transmitted to them by their husbands. Children of such dysfunctional families are not spared and often suffer from psychiatric illness, and have increased chances of falling into antisocial ways and substance use.

The society at large suffers from loss of productivity and an increased burden to support and treat these potentially productive members. Crime rates rise, and rash behavior often cause accidents and destruction of properties.

- **Psychological consequences:** Psychological complications range from lack of wellbeing to frank depression and other mental illnesses. Any underlying mental illness is generally aggravated by substance use.

- **Legal consequences:** Substance users are always at conflict with law. They are often incarcerated when caught with illicit substances and a life revolving in and out of jail follows, thereby severely hampering any gainful employment. Though the law in India (NDPS Act) has provision for treatment of substance users, in lieu of sending them to jail, it is seldom followed in real life. In order to sustain substance use behavior, many users are forced to indulge in illegal activities like stealing, robbing and peddling drugs. Vandalism, rash driving, intoxicated behavior often brings them to court.

Such dire consequences of drug use make it imperative to develop strategies that will help in early identification of substance users and treat them effectively to minimize the harmful consequences of substance use.

DRUG DE-ADDICTION PROGRAMME IN INDIA

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Drug and alcohol abuse is a matter of great concern in India both due to the social and economic consequences as well as due to its established linkage with HIV/AIDS. The onus of responding to the problems associated with drug use lies with the central and state governments. The constitution of India under Article 47 directs the government to prohibit use of these substances except for medical purposes. The various drug de-addiction programmes of Government of India have to be seen in this light.

The activities to reduce the drug use related problems in the country could broadly be divided into two arms: supply reduction and demand reduction. The supply reduction activities which aim at reducing the availability of illicit drugs within the country come under the purview of the Ministry of Home Affairs and the Ministry of Finance with the Department of Revenue as the nodal agency and are executed by various enforcement agencies. The demand reduction activities focus upon awareness building, treatment and rehabilitation of drug using patients. These activities are run by agencies under the Ministry of Health and Family Welfare, and Ministry of Social Justice and Empowerment.
The role of the Ministry of Health Family Welfare is to address reduction of their demands through:

- Providing treatment services
- Providing long-term care (medicines)
- Providing aftercare
- Providing health education

However, to provide effective and acceptable de-addiction services to a very large number of drug and alcohol users in India is a herculean task, which requires concerted efforts from several ends.

Genesis of the Drug De-addiction Programmes in India

The Ministry of Health and Family Welfare (MOHFW), Government of India, in 1976, appointed a high powered committee to examine the problem of Drug De addiction and suggest future guidelines. The report of this high-powered committee was submitted in 1977 and was laid on the floor of the Parliament. The recommendations of the report emphasized the need to evolve appropriate strategies and to bring about better coordination among different Ministries and Departments working in this area. The

Planning Commission and the Central Council of Health Ministers reviewed and accepted the report in 1979.

In the late seventies and early eighties, the country was presented with new challenges in the field of drug de-addiction as refined products such as heroin entered into the Indian illicit drug market for the first time. The issue was also complicated by the increasing reports of Injecting drug use (IDU) especially from the North-eastern region of the country and with the emergence of HIV infection in the country. It was in this context that the Govt. of India adopted a three-pronged strategy for demand reduction consisting of:

- Building awareness and educating people about ill effects of drug abuse
- Dealing with the drug dependent patients through programme of motivational counselling, treatment, follow-up and social-reintegration of recovered patients
- To impart drug abuse prevention/rehabilitation training to volunteers with a view to build up an educated cadre of service providers

The objective of the entire strategy is to empower the society and the community to deal with the problem of drug abuse. Rehabilitation of addicts as well as their counselling comes under the domain of the Ministry of Social Justice & Empowerment (MSJE) in Government of India, while demand reduction by way of treatment and after care is the concern of Ministry of Health & Family Welfare. However, the activities of both the government agencies overlap considerably in several ways. The approved budget for the de-addiction programme in the 10th Five Year Plan was Rs.33.00 crores which has increased in the 11th plan considering the need for comprehensive de-addiction services in the country.

Role of Ministry of Health and Family Welfare

The Drug De addiction Programme in the Ministry of Health & Family Welfare was started in the year 1987-88 which was later modified in 1992-93. The programme was initiated as a scheme with funding from the central government and implementation through the states. Under the scheme, a onetime grant in aid of Rs.8.00 lakhs was given to states for construction of each Drug De addiction Centre and a recurring grant of Rs.2.00 lakhs was given to Drug De addiction Centres established in North Eastern Regions to meet the expenses on medications and other requirements. At present 122 such Centres have been established across the country including centres in Central Government hospitals and institutions of which 43 centres have been established in the North Eastern Region. Under this programme, a national nodal centre, the "National Drug Dependence Treatment Centre", has been established under the All India Institute of Medical Sciences (AIIMS), New Delhi which is located in Ghaziabad while two centre

i.e. NIMHANS, Bangalore and PGI, Chandigarh have also been upgraded by this Ministry. The purpose of these centres was to provide de-addiction and rehabilitation services to the patients and to conduct research and provide training to medical and para-medical staff in the area of drug de addiction.

The National Drug Dependence Treatment Centre, AIIMS

The De-addiction Centre, AIIMS was established during the year 1987-88 and functioned from the premises of the Deen Dayal Upadhyay Hospital, Hari Nagar, New Delhi till 2003. The centre was subsequently shifted to its own building constructed at CGO complex, Kamla Nehru Nagar, Ghaziabad and was designated as the National Drug Dependence treatment Centre. It started both, outdoor and indoor treatment facilities in the year 2003. The centre also established a Community Clinic at Trilokpuri, New Delhi that started functioning from August 2003. The centre has also started a unique Mobile De-addiction Clinic at Sunder Nagari, New Delhi from 2007 as part of its endeavour to widen its services. Apart from rendering patient care services, the centre has been engaged in a number of other activities to fulfil its role as the nodal centre in the field of drug de addiction. These activities included conducting research, training programmes for general duty medical officers, nurses, paramedical professionals, development of resource material for professionals, patient awareness booklets, organization of national workshops, etc.

Drug De-addiction Centre, PGI, Chandigarh

This centre was established during 1988-89. The centre has facilities for both outdoor and inpatient care. The centre has been upgraded with an inpatient capacity of 30. The centre conducts drug de addiction awareness programme, treatment camps, counselling and provides free medication to all patients in Chandigarh and neighbouring states.

Drug De-addiction centre at NIMHANS, Bangalore

Drug De addiction centre at NIMHANS, Bangalore was established during the year 1991. The centre is functioning as a Regional Centre. A separate building has been constructed with a cost of Rs.5.10 crores and currently houses 30 inpatient beds. The centre conducts therapeutic group session for both inpatients and outpatients. The centre caters to more that 50% of the patients seeking treatment for substance abuse problems in the city of Bangalore. The Centre also treats patients from different parts of Karnataka, Andhra Pradesh, Tamil Nadu and Kerala. Referrals are also received from other states of the country. There have been several referrals from countries in the SAARC region and other countries as well.

Most recently the Ministry of Health have put considerable emphasis on community based treatment and has embarked on demonstration projects involving the district administration and district health administration. Currently, such a project is ongoing at a district each in three states, namely, Uttar Pradesh, Madhya Pradesh and Assam. It has been proposed that as a part of this programme, paramedical staff like ASHA workers, basic health workers and other health staff would be involved besides medical doctors and nurses. As a result training programmes have been held and several resource materials had been developed or are being developed. Currently, the following resource material are available:

- Manual for physicians
- Case book on Substance Use Disorder
- Manual for Nurses
- Manual on brief therapy
- Manual on Psycho-social Intervention
- Manual for Long-term Pharmacotherapy

The following two would be available soon:

- Manual for Para-medical staff (this document)
- Guidelines for minimum standards of care for Government De-Addiction centres

Demand Reduction Approach: Initiatives of Ministry of Social Justice and Empowerment

The Ministry of Social Justice & Empowerment has been implementing the Scheme for Prohibition and Drug Abuse Prevention since the year 1985-86. Unlike the MOH&FW, the MSJE follows a State-Community partnership approach as the mechanism for service delivery. Accordingly, under the Scheme, while major portion of the cost of services is borne by the Government, the Non Governmental Organisations (NGOs) provide actual services through the Counselling and Awareness Centres; De-addiction cum Rehabilitation Centres, De-addiction Camps, and Awareness Programmes. Under this Scheme, the Ministry is assisting more than 400 voluntary organisations (NGOs). All these centres have experts from various fields including doctors, counsellors, community workers social workers etc. Thus, it is a multi-disciplinary approach being applied according to the needs of individual cases. They work in coordination with the community resources as well infrastructure and services available under other related agencies.

Apart from this, this ministry has established a National Centre for Drug Abuse Prevention (NCDAP) under the aegis of the National Institute of Social Defence, New Delhi, to serve as the apex body in the country in the field of training, research and documentation in the field of drug abuse prevention. The centre has been conducting three months' certificate course on de addiction Counselling and Rehabilitation of Drug

Abusers. Eight NGOs have been developed as Regional Resource and Training Centres (RRTCs) to provide training and information at the regional levels.

Convergence

The de-addiction programmes in India developed by the two Ministries appear to run in parallel with little cooperation between the two agencies. The overcome this problem, several meetings have been held to establish effective linkage between the activities carried by the NGOs and the treatment centres supported by the Ministry of Health.

Monitoring and Evaluation

The MOH&FW periodically evaluates the Drug De-addiction Centres established under the Drug De-addiction Programme. With the financial assistance from WHO, the NDDTC, AIIMS has been conducting these evaluations of status of functioning of Government De addiction centres on the following parameters:

1. Patient load
2. Treatment being provided
3. Availability and utilization of equipment
4. Staffing in terms of posts available and filled
5. On-site interviews and
6. Review of records

The evaluation findings have served as a valuable input into the reformulation of the National Drug De addiction Programme.

ADVERSE HEALTH AND SOCIAL CONSEQUENCES OF SUBSTANCE ABUSE

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Dependence on drugs has enormous costs for society in terms of direct and indirect health and social consequences: human and financial resources lost due to abuse in the workplace; road and domestic accidents related to substance abuse; health care costs related to diseases (HIV, Hepatitis and other diseases including mental disorders) that develop in relation to substance dependence; and social problems including drug-related crimes and deaths due to overdose. The majority of these costs are difficult to quantify, but the few available studies indicate that a direct correlation does exist.

In the last 25 years, one of the most visible negative consequences of substance dependence has been the spread of HIV/AIDS and it is estimated that more than 10% of all HIV infections worldwide are due to the use of contaminated drug injecting equipment. Among injecting drug users, the rate of hepatitis infection in some places is even higher than HIV.

Despite the size of the problem and the enormous costs related to substance abuse, specialized services are not available or, if present, are not accessible. There are a number of obstacles for substance abusers to access effective services, partly due to stigma and

discrimination towards those who are substance abusers and also HIV positive.

Drugs can be considered harmful when their use causes physical, mental, social, legal or economic problems. Not all drugs are equally hazardous. Drugs sold legally for medicinal purposes are generally considered safe when taken according to the directions on prescription and as per the label. However, some of these drugs may produce unpleasant side effects even when used under medical guidance. Drugs obtained illegally are more likely to be hazardous; their effects are much less predictable and potentially dangerous. Many drugs are harmful when used in large doses, or in combination with other drugs.

Substance Abuse and dependence are major burdens to society

The costs of substance abuse and dependence to are staggering. Some studies have shown that:

- About 14 percent of patients admitted to hospitals have alcohol/ substance abuse and dependence disorders.
- About 70 percent of individuals in state prisons and jails have used illegal drugs regularly. Substance related offenders account for more than one-third of the growth in state prison population.
- The economic burden for dependence is twice as that of any other disease affecting the brain.

Adverse health consequences of substance abuse

1. Safety Hazards

Most psychoactive drugs can reduce physical coordination, distort the senses or impair memory, attention and judgment. These effects can lead to serious safety risks, especially if the person who uses the drugs drives a vehicle or operates machinery. Many road injuries and fatalities are caused by drivers intoxicated by alcohol or some other substance or combination of drugs. Also, effects such as reduced physical coordination and impaired judgment can lead to falls and other serious accidents. People who have taken alcohol or other drugs are often unaware of the extent of their impairment. Importantly, not just dependent users but even occasional users are vulnerable to safety hazards of substance use.

2. Physical Health Problems

All psychoactive drugs have effects other than those for which they are used, and some of these can be very damaging to physical health. Smoking cannabis or tobacco, for example, can cause lung damage and even cancer of oral and respiratory organs. Alcohol abuse can cause liver damage and hepatic encephalopathy. Sniffing substances can damage

the inside of the nose. People who inject drugs can get abscesses and infections such as hepatitis or HIV. Many other infections such as tuberculosis, Sexually transmitted infections, fungal infections, parasitic infections etc are very common among people using substances.

HIV/AIDS: In addition to direct transmission through sharing injection-drug equipment, indirect transmission occurs through sexual contact with HIV-positive injection drug users. Moreover, the use of both injected and non injected illicit drugs increases risk for HIV because of their effects on decision making and sexual risk taking.

Finally, dependent users have been shown to have a significantly increased likelihood of reporting a wide range of respiratory symptoms and exhibiting decreased lung functioning and a number of problems including bronchitis, coughing, phlegm production and wheezing, even after controlling for age, tobacco use and asthma. Prolonged use of substances may result in lower threshold of seizures resulting in additional complication of seizure disorder. Due to irregular eating pattern, persons abusing substances may develop nutritional deficiencies resulting in development of diseases such as anemia, Wernicke's encephalopathy, neuropathies etc.

3. Mental Health Problems

Some drugs can cause short-term confusion, anxiety or mental disturbance. In the longer term, substance abuse can result in personality disturbances, learning problems, loss of memory, organic brain diseases and can contribute to mental disorders. A person who turns to drugs as a way of avoiding normal anxiety and sadness may be establishing a pattern of behaviour that can be hard to break. Many people who use drugs in this way come to believe that they cannot function normally without drugs.

People with histories of serious emotional or mental health problems may also turn to drugs as a way of coping with unpleasant feelings. A correlation has been reported between substance use and lack of motivation. A condition called "amotivational syndrome" entails apathy, loss of effectiveness and a diminished ability to concentrate, difficulty to follow routines and inability to master new learning.

Research has suggested that substance abusers are more likely than non-abusers to report feeling depressed and heavy use may actually increase depressive symptoms. Furthermore, individuals with dependence are at greater risk of suicide attempts. Also, experience of physical or sexual abuse is common among people abusing substances.

4. *Tolerance*

Tolerance means that, over time and with regular use, a person who uses drugs needs more and more of a substance to get the same effect.

Tolerance increases the physical health risks of any substance simply because it can result in increased substance use over time. Tolerance also increases the risk of dangerous or fatal overdose.

As people age, physiological changes may mean they need less of a substance to get the same effect. This result may be compounded if their liver or kidneys have been damaged by chronic disease.

5. *Physical Dependence*

Physical dependence occurs when a person's body becomes so accustomed to a particular substance that it can only function normally if the substance is present. If people who use drugs drastically reduce their level of use or stop using the substance abruptly, they may experience a variety of signs and symptoms ranging from mild discomfort to seizures. These effects, some of which can be fatal, are collectively referred to as "withdrawal".

Withdrawal symptoms are often opposite to the effects produced by taking the drug, e.g. when a person stops using a stimulant substance such as cocaine they may become depressed, need to sleep a lot, and have increased appetite when they awaken. To avoid the discomfort of withdrawal, the person who uses drugs may start to use again or feel unable to stop using the drug. Not all drugs produce physical dependence, but they may still be abused because the person who uses drugs becomes psychologically dependent on the drug's effects.

6. *Psychological Dependence*

Psychological dependence exists when a substance is so central to a person's thoughts, emotions and activities that it is extremely difficult to stop using it, or even stop thinking about it. A strong desire or "craving" to use a substance may be triggered by internal or external cues such as the end of a meal for smokers or seeing injection equipment for people who inject drugs. Like physical dependence, psychological dependence is a cause of continued substance use. An individual may be both psychologically and physically dependent on a drug.

Combining Drugs (polydrug use)

Many drugs become more dangerous when they are mixed. People may combine drugs intentionally to enhance the effects, or to counteract undesirable side-effects, or they may use a hazardous combination of drugs without intending to do so. For example, they may take sleeping medications after drinking alcohol without being aware that using these drugs together is hazardous. People who use drugs illegally may mix drugs unknowingly because they do not know what they are taking.

Many drugs taken together have the potential to interact with one another to produce greater effects than either substance taken alone. Or, the combination of drugs may produce a new or unexpected effect. For example, alcohol, opioid analgesics (like codeine), and benzodiazepines (like diazepam) are all depressant drugs. When taken alone, they can cause relaxation, dis-inhibition, loss of coordination and sleepiness. If these depressant drugs are taken at the same time, these effects are increased. Such combinations may result in confusion, injuries from falls, depressed breathing, coma and death.

Some antidepressants and many drugs taken to treat epilepsy, nausea, allergies and colds also have depressant effects. When taken with other depressants like alcohol, they can dangerously slow or stop breathing. Alcohol can also interact with common medications for heart problems, blood clotting disorders, fungal and bacterial infections, and diabetes, either making them less effective or producing unexpected and undesirable effects. Combining drugs may also seriously impair a person's ability to operate a motor vehicle or other machinery.

Comorbid use of alcohol may also increase substance dependence. Although it is difficult to determine the exact causal relationship between alcohol and substance use, alcohol does appear to moderate the association between abuse of drugs and dependence.

7. Overdose

An overdose of any substance is a dose that can cause serious and sudden physical or mental damage. An overdose may or may not be fatal, depending on the substance and the amount taken. Dangerous overdoses are more likely to occur in people who have developed a tolerance for some effects of a substance more than others, those who return to substance use after a long period of abstinence, or those who use drugs illegally and have no way of knowing the exact potency of what they are buying. Sudden increases in the purity of some illegal drugs (e.g., heroin), may result in unintentional fatal overdoses.

Adverse Legal consequences of substance abuse

Hazards of Using Drugs Illegally

Using drugs illegally has its own set of risks. People who use drugs that have been obtained illegally can never know exactly what they are taking. Dealers may not know (or reveal) exactly what they are selling. Some drugs are laced with other drugs or chemicals, or contaminated by fungi or moulds, that can be harmful. Often one substance is sold in place of another. As a result, many bad substance reactions, including fatal overdoses, have occurred. People who use drugs heavily may use any substance that is available at the right price. As well, people who regularly use drugs illegally,

particularly people who inject drugs, are at increased risk for a range of health, legal and social problems.

Crime and criminality

Drugs and crime are also related in several ways. Drug-related crime occurs primarily in the form of trafficking-related criminal activity, including violence between groups in competition for increased market share at the wholesale and retail levels. There is a correlation between substance use and prostitution.

Violence

Use of drugs is sometimes associated with violence and crime. Although, alcohol or other drugs do not cause violence, both the victims and perpetrators of violence may be using certain drugs. Date rape is one example, where the effects of benzodiazepines or alcohol may put the victim at increased risk for such violence. Two drugs, Rohypnol (flunitrazepam) and GHB (gamma-hydroxybutyrate) have been associated with date rape because their effects incapacitate the victim and make the person unable to resist the sexual assault. Because they are colourless, odourless and tasteless, the victim may not be aware that the substance has been deliberately added to their drink.

People may also commit crimes in order to make money to buy drugs, and substance problems are frequent among criminal offenders.

Hazardous Driving

Researchers have found that cannabis use is associated with a doubling of the risk of being involved in a fatal collision. In our country too, alcohol has been cited as a frequent factor behind road traffic accidents.

Adverse Social consequences of substance abuse

Among the social consequences of substance abuse and illicit drug trafficking, the most prominent include the effects on **Family.**

The fragmentation of many families for example, is due to the wedge represented by substance abuse; many studies have found that family disintegration correlates more strongly with substance abuse than with poverty.

Stigma and Discrimation

Due to stigma and discrimination people with mental health and substance use problems keep their problems a secret. As a result they avoid getting the help they need. Stigma affects people's access to treatment for substance use problems. Someone with a problem may be reluctant to seek help (even through "anonymous" support groups are becoming increasingly popular) for fear of society's reaction if they were found to have a substance use problem.

Stigma can be of two types:
Stigma by others: Stigma and discrimination exclude people with substance use problems from activities that are open to other people. This limits people's ability to:

- Get and keep a job
- Get and keep a safe place to live
- Get health care (including treatment for substance use and mental health problems) and other support
- Be accepted by their family, friends and community
- Find and make friends or have other long-term relationships take part in social activities.

Self Stigma: Stigma and discrimination often become internalized by people with substance use problems. This leads them to:

- Believe the negative things that other people and the media say about them
- Have lower self-esteem because they feel guilt and shame.

Reducing stigma and discrimination against people with substance use problems:

1. Know the facts

Educate yourself about substance use —what can bring it on; who is more likely to develop problems; and how to prevent or reduce the severity of problems. Learn the facts instead of the myths.

2. Be aware of your attitudes and behaviour

We've all grown up with prejudices and judgmental thinking, which are passed on by society and reinforced by family, friends and the media. However, we can change the way we think—and see people as unique human beings, not as labels or stereotypes.

3. Choose your words carefully
The way we speak can affect the way other people think and speak. Use accurate and sensitive words when talking about people with substance use problems.

4. Educate others
Find opportunities to pass on facts and positive attitudes about people with substance use problems. If people or the media present information that is not true, challenge their myths and stereotypes. Let them know how their negative words and incorrect descriptions affect people with substance use and mental health problems, and keep alive the false ideas.

5. Focus on the positive
People with substance use problems make valuable contributions to society. Their health problems are just one part of who they are.

6. Support people
Treat people who have substance use problems with dignity and respect. Think about how you'd like others to act toward you if you were in the same situation.
If you have family members, friends or co-workers with substance use problems, support their choices and encourage their efforts to get well.

7. Include everyone
Denying people access to things such as jobs, housing and health care, which the rest of us take for granted, violates human rights. People with substance use problems have a right to take an equal part in society. Let's make sure that happens.

Problems in employment

Substances users have reduced ability in variety of areas. Substance use adversely affects their fine motor skills, gross motor skills, judgment, decision making ability, memory, abstract thinking, communication skills, interpersonal skills, and leads to behavioral changes (aggression, anger outbursts, manipulative behavior) etc. As a result they face the problem of unemployment. They can not only lose their current job but also face problems in getting a new job.

Adverse Economic consequences of substance abuse

With regard to the economic consequences of drug abuse and trafficking, there is now general agreement that several areas of analysis warrant investigation. These include the relationship which illicit drugs have with, a) employment, b) prices, c) trade, and d)

finance. Many assume that the illicit drug trade is a source of employment without any costs for those unable to find productive work in other sectors. But inevitably the employment gains generated by the drug trade are more than offset by various side effects. Indeed, those in need rarely benefit from the profits obtained in the illicit drug trade. Two such effects include the inevitable spillover from drug production into consumption, which impacts negatively on productivity and the sacrifice of resources diverted from legitimate and more sustainable investments.

It is no wonder addicts cannot simply quit on their own.

They have an illness that requires biomedical treatment. People often assume that because dependence begins with a voluntary behavior and is expressed in the form of excess behavior, people should just be able to quit by force of will alone. However, it is essential to understand when dealing with addicts that we are dealing with individuals whose brains have been altered by substance use. They need substance dependence treatment.

What you can do to help a person with substance addiction?

1. Understand that while a person who is addicted to drugs made the choice to try the drug, they did not choose to become addicted. An addicted person's brain is functioning abnormally and their substance use is out of their control. They need and deserve the same medical treatment as anyone else with a chronic illness would receive.
2. Find them a treatment program that treats all of their individual problems together, such as substance addiction, behavioral issues, mental illness and/or life skills.
3. Since treatment does not have to be voluntary to work, consider involving the justice system, employer or other.

ASSESSMENT AND DIAGNOSIS IN SUBSTANCE USE DISORDER

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Assessment forms the cornerstone in diagnosis and management of substance use disorder. The chapter is divided into two parts

1. Assessment
2. Diagnosis.

The assessment part begins with the discussion on necessity of assessment followed by stages, settings and levels of assessment. Thereafter some of the tools used for assessment are mentioned. Laboratory investigations do not form a part of this chapter and will be covered elsewhere.

The diagnosis section begins with the meaning of some commonly employed terms, followed by description of the criteria for 'dependence' and 'harmful use.'

Assessment

Substance use disorder (SUD) affects individuals across all strata of society with a high prevalence in all countries including India. Though experts are available in substance abuse treatment centres, only a handful of patients utilize their services. These centres are often the last point of contact in the patients' chain of treatment seeking. In contrast, primary care physicians are often contacted initially for a number of physical problems associated with drug use. Whereas it is important to train the primary care physicians to recognize and treat substance use related problems, it is equally important that the patients access these treatment options. Less than one fourth of the patient who need treatment come for help.

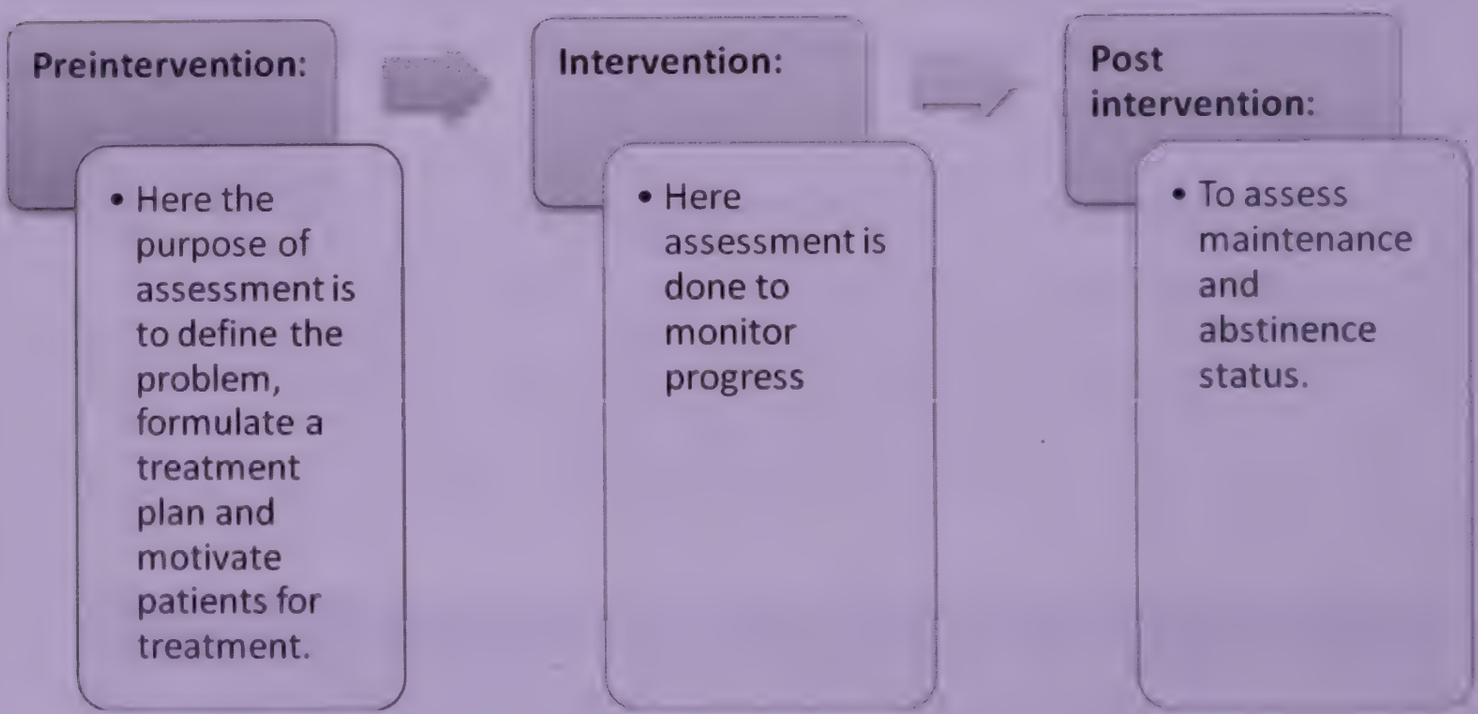
Enhancing treatment seeking:

- Create awareness
- Sensitise the public and community leaders
- Educate public about the nature of this illness and treatment options available
- Motivate treatment nonseekers
- Ensure rehabilitation and post detoxification support
- Involve family in treatment ; counsel those facing burden of substance use in the family

This job (of enhancing treatment seeking) is best carried out by paramedical personnel who can go out in the community and interact with the patients, their families and community leaders.

A proper assessment is necessary for a multitude of reasons :

a) Screening of patients who may only complain of physical problems and not reveal drug use by themselves.
b) Establishing a diagnosis
c) Planning treatment
d) Referral to a specialist for further treatment
e) Assessment also serves to establish rapport and motivate the patient to seek treatment/ reduce harmful use/ encourage abstinence.



Assessment is not a one time phenomenon. This is carried out at **various stages**:
The role of the paramedical personnel is most important in the **pre** and **post intervention** stage. In the Preintervention phase she can identify persons who need help for the substance abuse problem, motivate them and give them an idea about the treatment procedure. Post intervention interaction is very important to prevent relapse which always is a very real possibility.

Screening:

An initial function of assessment is identifying individuals who may either have a substance use problem or is at risk of developing one. Screening is usually applied to a large group of individuals and is brief by nature. It can be applied in the community setting or those settings where the individuals are encountered for problems that may not appear to be related to substance use, yet the association of the problem with substance use may be strong, e.g. a general medical setup, emergency rooms, trauma centres, psychiatric setting or in a legal setup (e.g. prison wards, individuals caught for drunken driving). These settings usually encounter individuals who may have a substance use problem but are not actively seeking treatment for the same.

Efforts have been made to develop brief questionnaires and interviews so that many individuals with drug abuse problem may be identified in a relatively short period. These instruments comprise of simple questions that have a 'yes/no' or a 'most true/ not true' answers. Some frequently used instruments[2] are:

1. CAGE: an acronym for 4 questions used to assess those with alcohol problem
2. MAST: Michigan Alcohol Screening Test
3. DAST: Drug Abuse Screening Test
4. AUDIT: Alcohol Use Disorder Identification Test

Tools of assessment

Assessment can be carried out by various means. These are

A) Clinical:

Here, assessment is carried out by eliciting information as well as carrying out a detailed examination of the patient. The relevant information can be gathered from patient as well as the care giver. Informants are a good source for corroborating all aspects of patients drug use including quantity and frequency of use, type(s) of drugs being used, duration of use, route of intake, complications (physical, social, familial, occupational), attempts to leave the drug (abstinence) and reasons for relapse.

Classically, for a thorough **Clinical** assessment one needs to assess the following domains:

1. History
2. Physical examination
3. Mental status examination

[2] Some of these instruments are available in the appendix.

The paramedical personnel should be equipped to take a good history from the patient and corroborate with the family members, do a basic physical examination that includes looking for signs of injection use, trauma and any obvious problems (e.g. yellowing of sclera). She should also ask some basic questions on mental status about aspects particularly disturbing to the patients like depression. A knowledge of what laboratory tests may be required is useful. These would help her interact with the patients in a knowledgeable way that inspires confidence. She could then bring these aspects to the notice of the treating physician. A detailed format for History and examination can be found in Annexure.

B) Laboratory Investigations:

These serves a dual purpose :
1. Confirmation of presence/ absence of drugs of abuse
2. Investigations for physical damage caused by these drugs

Similar to examination, investigation provides an objective measure of the drug used and the extent to which drug use has caused damage to the body. This can be used effectively to enhance motivation of individuals who are in the state of denial with regards to their drug use.

C) Instruments / Questionnaires:

These are a set of questions designed to assess one or more domains associated with drug abuse. This provides a more structured way of assessment of an individual. Several rating scales and instruments exist to assess different domains. Some of these instruments have high sensitivity and can be used for screening purpose. Instruments with high degrees of specificity confirm the diagnosis of substance use disorders. Some instruments may require training to enable the individual to administer the particular instrument.

Thus, it can be seen that assessment can be carried out using several sources of information as well as using different measures. Though investigations and rating scales can aid in assessment, a thorough clinical assessment serves a number of additional purposes including establishing rapport as well as increasing motivation of the individual.

Validity of self reports

Many clinicians are of the impression that self report may not be reliable. However, research suggests that the possible distortion in self report is less problematic than it is feared to be. Self reports can be made more reliable by enhancing motivation and developing an empathic, non judgmental attitude towards drug user.

The following measures have been found to be helpful in increasing the reliability of self reports. At the time of assessment one must ensure that

1. patient is alcohol and drug free (not intoxicated)
2. sufficient time has passed since last drink/drug use to allow clear responses
3. confidentiality is assured.
4. setting is non threatening and non judgmental.
5. patient does not feel pressured to respond in a particular way.
6. patient has no reason to distort reports(e.g. abstinence being a condition of parole).
7. patient is aware that corroborating information is available and will be collected (e.g. breath test, report of spouse and other sources).
8. questions are clearly worded and valid measurement approaches are used.
9. assessment worker or therapist has a good rapport with the patient.
10. person administering the measures should be able to communicate clearly with the patient.

Diagnosis

The World Health Organization (WHO) and the American Psychiatric Association (APA) have independently proposed a cluster of factors to make a uniform diagnosis of Substance Use Disorders (ICD-10; DSM-4). The diagnosis is made by the presence of a fixed number of criteria out of the larger group. The most commonly followed diagnostic system is that published by WHO (ICD10; International Classification of Diseases,10th edition).

ICD 10 classifies SUD into intoxication, harmful use, dependence syndrome, withdrawal state, psychotic disorder and amnestic syndrome. This chapter deals with the 'dependence syndrome' and 'harmful use'.

Dependence syndrome

Dependence syndrome has been defined in ICD10 as "A cluster of physiological, behavioural and cognitive phenomena in which use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value"

It specifies dependence as having **three or more** of the following criteria exhibited at some time during a one year period

a) Tolerance: there is a need for significantly increased amounts of the substance to achieve intoxication or the desired effect, or a markedly diminished effect with continued use of the same amount of the substance.

For example, an individual would have started with 60ml of whisky to obtain pleasure, however with continuous use he has to consume 180 ml of the same to obtain the same amount of high.

b) Physiological withdrawal state: characteristic symptoms experienced on stoppage/ reduction of a substance after prolonged use.

Every class of substance produces its own set of signs/ symptoms of withdrawal. Alcohol withdrawal would producer tremors, sweating, nausea/ retching/ vomiting, insomnia, palpitations with tachycardia, hypertension, headache, psychomotor agitation and in severe cases, hallucination, disorientation and grand mal seizures ('fits'). Opioid withdrawal would produce watering of eyes, watering of nose, diarrhea, body aches and cramps.

c) Impaired capacity to control substance use behavior in terms of its onset, termination or level of use as evidenced by the substance being often taken in larger amounts or over a longer period than intended; or by a persistent desire or unsuccessful efforts to reduce or control substance use.
Thus, an individual may find it difficult to avoid using substances at particular place or time or also to limit himself to a particular predetermined amount. Some researchers are of the view that loss of control is the most important criterion determining substance use.

d) Preoccupation with substance use, as manifested by important alternative pleasures or interests being given up or reduced because of substance use; or a great deal of time spent in activities necessary to obtain, take or recover from the effects of the substance.

e) Continued use in spite of clear evidence of harmful consequences, as evidenced by continued use when the individual is actually aware, or may be expected to be aware, of the nature and extent of harm.

f) Strong desire to use substance (craving). This craving may occur spontaneously or induced by the presence of particular stimuli. Exposure to stimuli where or with whom the individual would have used the substance would lead to a strong desire to consume the substance. This is termed 'cue induced' craving.

Thus, multiple criteria are necessary to diagnose dependence. For e.g. cancer patients who are given opioid as analgesics may have tolerance and withdrawal. However they may not be diagnosed as having dependence syndrome unless they fulfill other criteria. The dependence syndrome criteria are not an all or none state, rather one that exists in degrees of severity.

Criteria for diagnosing Substance Dependence (Three or more should be fulfilled)
Tolerance
Withdrawal
Loss of control
Preoccupation with substance use
Continued use in spite of harm
Craving (Strong desire to use)

Harmful use

As per the ICD 10, the category of harmful use constitutes
a) A **pattern of substance use that is causing damage** to health. The damage may be physical or mental. The diagnosis requires that *actual damage* should have been caused to the mental or physical health of the user.
b) **No concurrent diagnosis of the substance dependence** syndrome for the same class of the substance.

Yet another similar term is substance 'abuse' given by the DSM IV (American classificatory system). This includes social, legal and occupational consequence of drug use in addition to physical and mental harm.

Conclusion

The magnitude of SUD is enormous. However the experts to treat such patients are few and not all patients who need treatment seek treatment. This maybe due to various factors including lack of awareness, stigma, denial or inaccessibility of treatment. The paramedical personnel can reach out to the community and generate awareness, motivate

patients and facilitate entry into treatment. They can form an effective linkage between the patient, treating physician and the community. Apart from diagnosing substance related problems, assessment provides a very good opportunity to develop rapport with patients and enhance motivation.

Technique and style in assessment and diagnosis

The traditional view regarding substance using population is that drug users are unmotivated, in a state of denial and resistant to change / stop their drug using behavior. Hence, the treating team members often assume a confrontational style and much of the efforts go into making the patient accept / realize his drug use and accept the 'addict / alcoholic' label. However, such an approach would make the drug user move away from the treatment rather than towards it. Research has found that these labels and opinions regarding drug user are falsely based. Denial maybe present, but it is a modifiable state. The aim of interaction should not be to make the patient accept the label of 'addict / alcoholic.' Instead one should

a. express a warm concern about the problem

b. be non directive, non judgmental and supportive

c. instill confidence about the efficacy of treatment procedure

d. interact with and reassure family members

Treatment Principles and Overview

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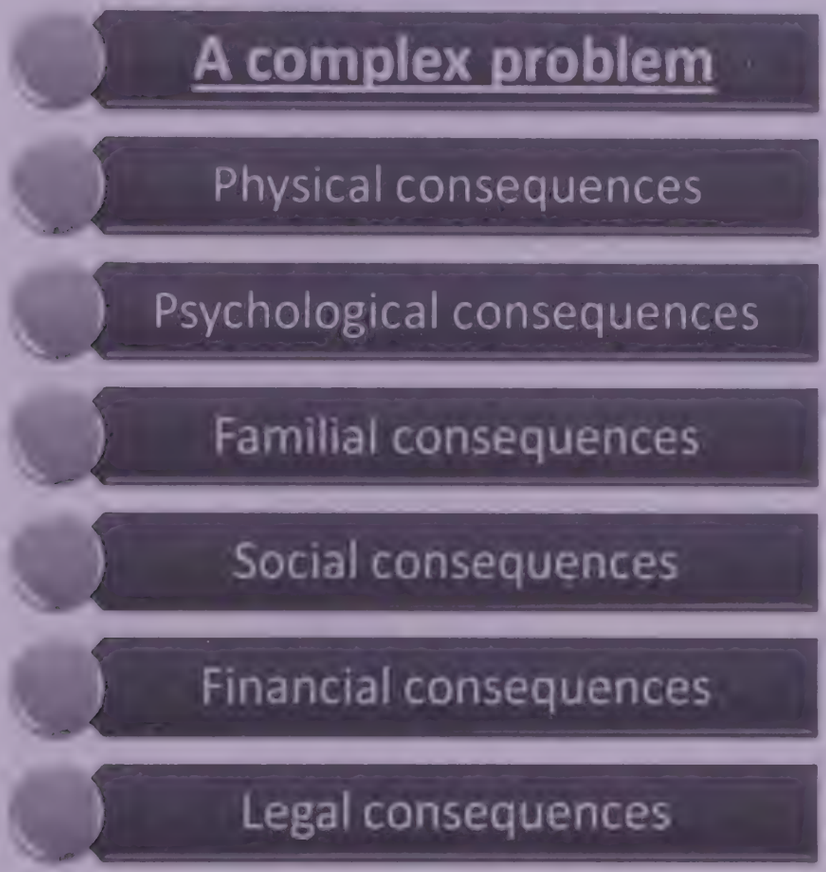
Drug abuse and dependence are complex problems. The complexity of the problem reflects not only in the multiple (adverse) effects it exerts but also in the varied sections of the society it affects. Adverse consequences include effect on physical and mental health and familial, social, economic and legal sequelae. Contrary to some popular notions and beliefs, it does not spare any socio-economic, cultural or religious groups. It affects both genders and a wide age group of the population. While the direct effects might be experienced by those consuming these substances, the impact is felt even by those not using them. These seemingly unaffected sections of the society experience some of the indirect but equally distressing and troublesome consequences of drug use. These include the family members of the drug user who along with the pain of seeing one of them suffering from the effects of drug use face the interpersonal discord, loss of societal respect, marginalization in society and financial constraints among others.



DIRECT EFFECTS	INDIRECT EFFECTS
• Drug user	• Spouse • Family members • Employers • Society

Need of para-medical staff

As the understanding in the issue of drug abuse and dependence has grown over the years, it has increasingly being recognized that the effective management of the drug use problem requires a multi-pronged intervention strategy and by multiple persons. Currently it is felt that an **integrated approach** is the best model for its management. This integrative approach means not only in terms of the types of interventions but also in terms of the stake holders and care givers. Combining interventions like medicines, psychological interventions, socio-occupational rehabilitation has not only ensured better outcomes, but also paved the way for coming together of different categories of service providers. Thus, a comprehensive drug dependence treatment plan would involve medical and para-medical staff with different orientation and training backgrounds. These include the psychiatrists, psychologists, social workers, nurse, health workers and even family members of drug users (who serve as co-therapist). The magnitude of problem and the limited resources available makes their judicious use a prerequisite to any such management approach. The restricted availability of the human resource in terms of number as well as expertise makes it even more crucial to use it most effectively and efficiently. This is where the role of the para-medicals and the support staff assumes significance of utmost importance.

Treatment of drug use involves many different kinds of modalities

The current chapter highlights the role of the para-medical staff as a part of this multi-member management team. These para-medical

Treatment of drug use involves many different kinds of medical and paramedical staff

professionals include counsellor, medical social worker, multi-purpose worker, primary health workers, ASHA (Accredited Social Health Activist), Anganwadi workers and ANM etc.

Some of the attributes that make the para-medical staff an important work force are as follows:

- Awareness of the locality because of being the local resident
- Ease of communication and establishing a rapport
- Possibility of a trusting relation with the drug user and the family members
- Acceptability of the workers by the local population
- Awareness of the usual barriers like local myths
- Existing experience of working with the local population

How to intervene

Such a person could play a multitude of roles in the delivery of the diagnostic and treatment services for the drug use related problems. The role might vary from team to team depending on the requirements of the situation and also within the individual over time. Thus, the requirements vary not only among different individuals but also for the same drug using individual at different times.

The possible ways in which such a staff could contribute to a management team for drug use related problem is as follows:

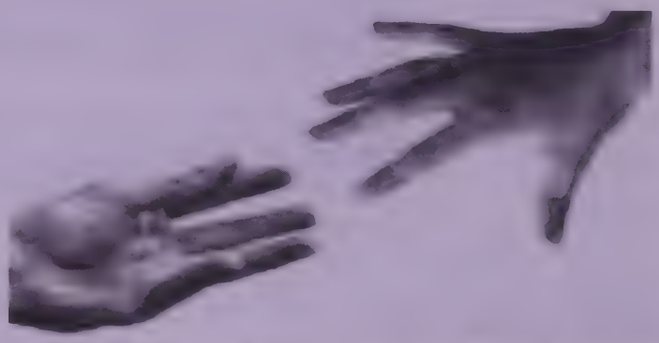
Early identification:

The first and the foremost step in resolution of any problem is its identification. Drug use is essentially a hidden phenomenon due to stigma. Being a member of the local community, the para-medics are in an

advantageous position of being aware of the possible drug users in the locality and establishing a rapport with these individuals because of their acquaintance with the local population. Serving as outreach workers for the various ongoing health programme, they are already in contact with the families and the households of the locality and thus could be the first persons to pick up the drug use related problems among the individuals.

Overcoming the barriers:
Mere identification of the drug use problem does not resolve the issue. Treatment seeking among the drug users is poor due to: a lack of awareness of availability of the treatment facilities, inaccessibility of the treatment facility, lack of motivation, apprehensions due to associated stigma, myths and misbeliefs regarding drug use and its treatment, inability to reach to the treatment facilities due to poor general condition, financial or logistic reasons.

The para-medical staff can play a vital role in identifying the drug users and helping them overcome these barriers to the treatment seeking.



Extending a helping hand: It's never too late to seek treatment for drug use related problems. The para-medical staff can initiate this process by extending a helping hand to such individuals and their families.

Understanding the finer nuances: Since the paramedical staff belong to the same socio-cultural background, it is easier for them to understand the intricacies involved in the individual case.

Establishing trust and therapeutic relation: It is easier for the drug user and the family member to confide in them and establish the trust that is of utmost importance for a lasting therapeutic alliance.

Easy access to treatment: The para-medical staff can facilitate the process of seeking treatment by acting as a bridge between drug users and the services.

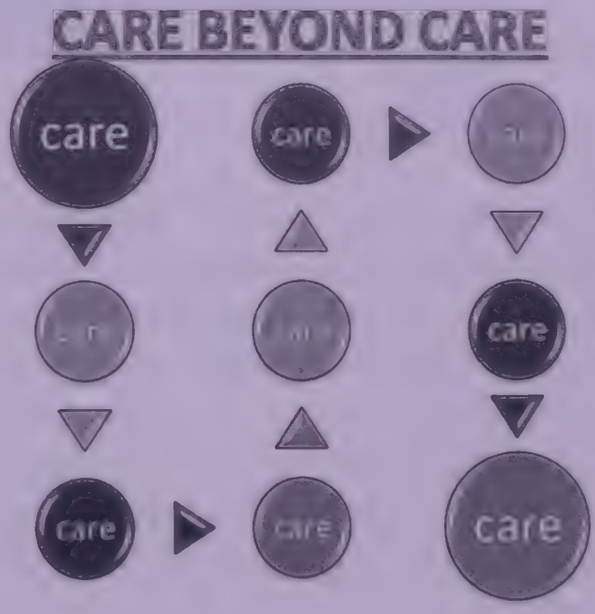
Enhancing motivation: Treatment for drug use related problems and the consequent recovery is a process rather than being a point event. Fluctuations in the motivation level of the treatment seekers are a likely occurrence on the road to recovery. Following identification, this staff can play a very important role to motivate the users to come forward and seek help. Moreover, during the ongoing treatment, they could

ensure that the treatment seeker continues to be motivated for abstinence and continue the treatment.

Allaying concerns and myths: Being the first person of the therapeutic team coming in contact with potential beneficiaries of treatment facilities, para-medics can help these individuals overcome their concerns and misconceptions regarding drug use and its treatment by imparting appropriate knowledge.

Brief intervention:
Drug use related problems could be detected during the early stages of development. These substance users who not have yet become hard core addicts, may not require concentrated medical treatment, but may benefit from less intense efforts including simple advice in the early stage of drug career. These techniques called brief intervention can be taught to the para-medical staff (discussed in another chapter).

After care:
As described earlier, the treatment of drug use is a process rather being a single event. Thus it becomes essential that the interventions are modified with time as per the requirements of the situation. While the drug users are likely to be weaned off the medicine-based therapy over time, the treatment does not end there; remaining drug/alcohol free very important. Once the drug user has completed the initial treatment, the treatment team should ensure follow-up and adherence to abstinence. They can also identify impending relapse and help in relapse prevention and an early return to treatment.



Assisting the medical team: The para-medical staff can also assist the doctors and the nurses in various phases of treatment.

IEC/KAP activities: Along with the therapeutic activities the para-medical staff could contribute to an equally important role of preventive services. These include the activities directed at Information, Education, Communication (IEC) and Knowledge, Attitude and Practice (KAP) to bring about changes in drug career. The possible contributions could be raising overall awareness

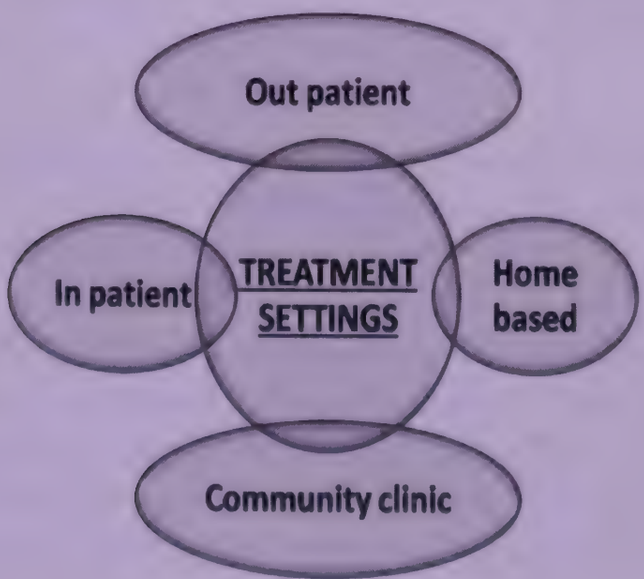
on drug and alcohol use in the community and helping the family members in the treatment process and recovery.

ROLES OF PARA-MEDICAL STAFF

- Early identification
- Overcoming the barriers
- Ensuring compliance
- Brief intervention
- After care
- Assisting the medical team
- IEC/KAP activities

Where to intervene

The treatment settings for the drug use related problems could vary. The treatment can take place at various settings like OPD, in-patient, community clinic and even in natural surrounding (home-based care). ***Many patients do not require admission to a hospital.*** The para-medical staff could contribute to the patient care in all these settings. Depending on the requirement of the setting, the intervention might require some adjustments. By virtue of their ongoing health care activities and the training received for the same, this would at times mean some fine tuning of the existing skills. However, the para-medical staff should not undermine the importance of this adjustment as the needs of the drug users might not exactly be the same as of the population with other medical conditions. Such a modification would go a long way in ensuring a meaningful contribution to the treatment.

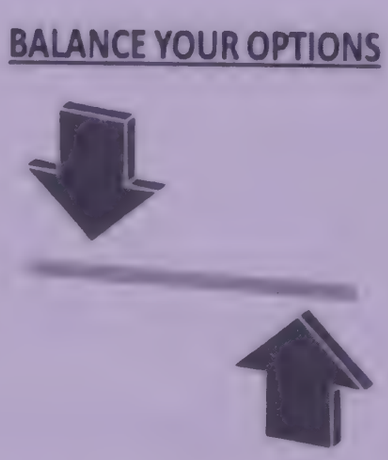


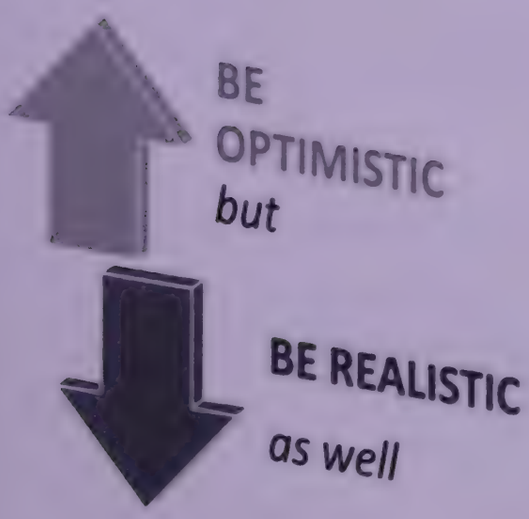
In an OPD setting the para-medical staff could help carry out enrolment of the individual in treatment by establishing trust and therapeutic alliance. They could also do motivation enhancement, medication dispensing (preferably

supervised/under guidance from doctor), group sessions and record keeping. The same responsibilities could extend to the in-patient setting along with the added activities of close supervision and general nursing care of the drug users. In a natural setting like the home, the role would assume added responsibilities of bringing the individual into treatment, paying home visits to ensure follow up, ensuring compliance and different educational activities.

Beware of the pitfalls

As has been mentioned previously the problem of drug use and its treatment demands a committed and coordinated approach from the service providers. This translates in to a long lasting, continued and frequently changing service delivery. Thus the treating staff should approach the patient with optimism. However, at the same time the staff should not set unrealistic goals for themselves as well as the patients.



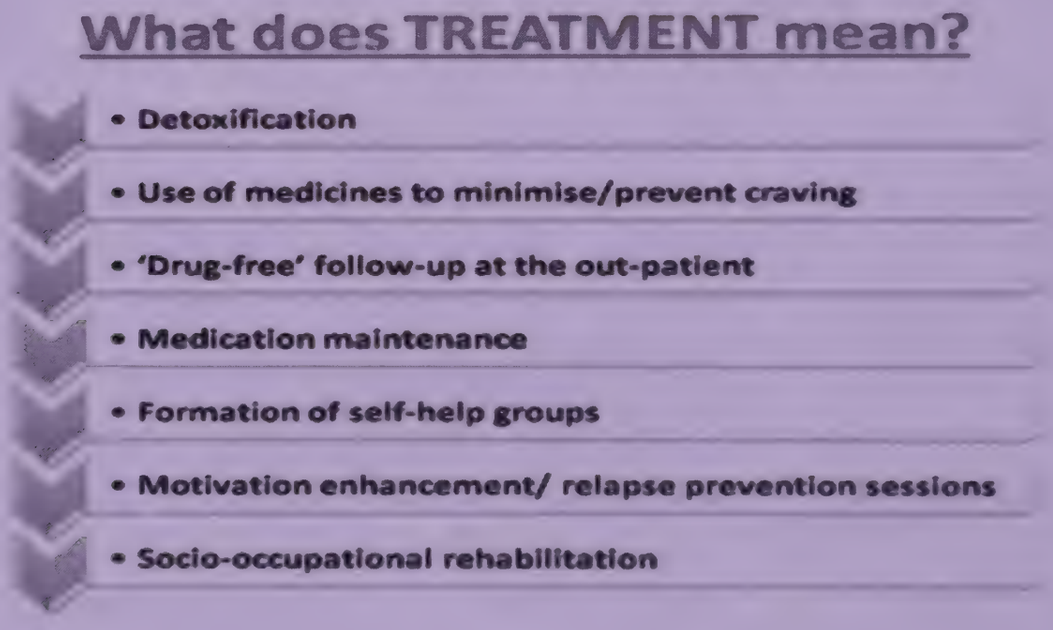


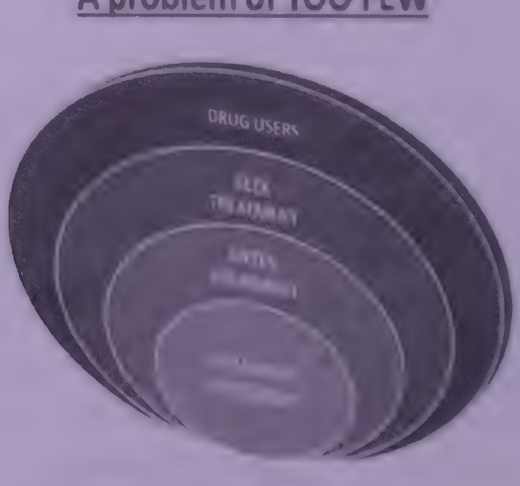
There is often a mismatch between the expectations of the patients seeking help and the actual help that is being offered and the facilities of the treatment centre. Such a mismatch causes early termination of treatment leading to relapse. As a result, staff gets discouraged and does not renew an attempt to help the patients. While a positive outlook is of utmost importance for such treatment activities, an over enthusiastic and unrealistic treatment plan can be counterproductive. The staff members should help the drug users set realistic goals. At the same time they should always be ready to accept setbacks during the course of the treatment. The road to recovery could be marred with occasional, transient failures and even a prolonged abstinence could end up in a relapse. The staffers should see these events as realistic possibility in the overall process of recovery and thus an opportunity to intervene. Such an approach would help them re-motivate the treatment seekers as well as themselves to remain engaged in the treatment process whole heartedly. Finally, recovery would mean stopping drug use, developing stable living conditions, improved family ties and reduction in crime. Thus besides use of medicines, patients would need help to address the above issues as well.

Awareness of available interventions

In order to ensure a complete understanding of the treatment approach and possible interventions the para-medical staff should apprise themselves of all available interventions. While they might not be required to administer these treatments on their own, an understanding of the issues involved would be of paramount importance in continuing patient care. The treatment for drug abuse/dependence might mean:

- Use of medicines to prevent withdrawal symptoms (Detoxification)
- Use of medicines to minimise/prevent craving
- Drug-free' follow-up at the out-patient
- Medicines to be used for Long-term (Medication maintenance)
- Formation of self-help groups
- Motivation enhancement/ relapse prevention sessions
- Socio-occupational rehabilitation





Current immediate challenges

In order to facilitate preparedness, the para-medical staff involved in the treatment of drug users should be aware of the common challenges. Some of these are:

Too few drug users are attracted to treatment
Too few accept treatment
Too few stay in treatment

National and state health departments have opened specialised treatment centres all over the country for such a purpose. It is important to develop close relationship between community, general hospital treatment centre and specialised de-addiction centres. Staff would have to acquire skills and hence would need in-service training programme for the purpose of providing care to subjects with substance use disorder.

PSYCHOSOCIAL INTERVENTIONS FOR SUBSTANCE USE PROBLEMS

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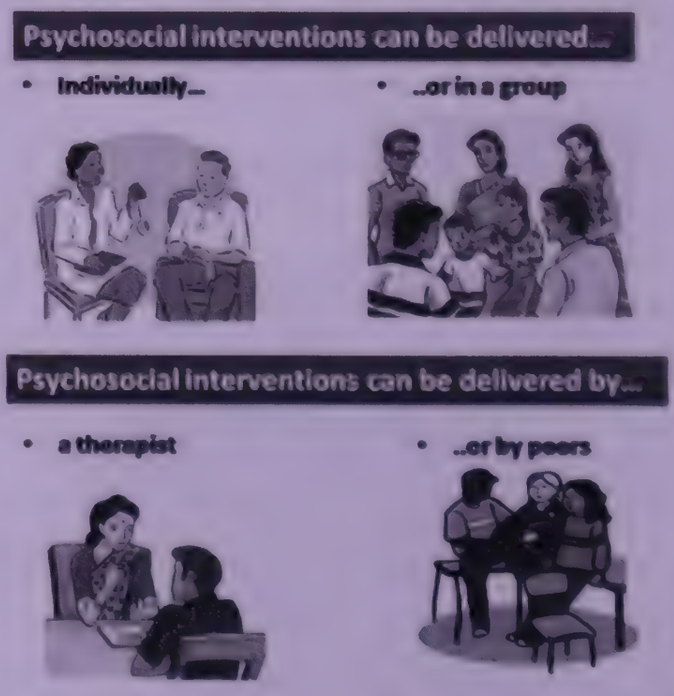
Substance use is a Bio-psychosocial illness and Psychosocial intervention forms an important part of treatment . The current chapter focuses on some of the very important issues related to non medical management of this disorder. These are:

- Concept of stages of change
- Enhancing motivation to seek help
- Referral (establishing referral linkages, preparing resource directory etc.)
- Psycho-education to patient and family about the illness, its treatment and the recovery process
- Rehabilitation: Social, Occupational, Financial
- Addressing stigma and discrimination

The role of paramedical staff worker in providing help for substance use disorders has been illustrated through a hypothetical story "*The story of Sunil.*"

Psychosocial Intervention: The concept

Psychosocial intervention comprises of a range of non-medical interventions that are aimed at motivating an individual to seek treatment for alcohol and drug use, improving retention in treatment and compliance to pharmacotherapy. It also focuses on improving quality of life, reducing high-risk behavior and developing skills to cope with factors leading to relapse. Rehabilitation, reintegration with society, counselling and educating the family members about the nature of disease and role of family in treatment are also issues which are addressed during psychosocial intervention.



Concept of Change

Generally it is believed that change is an event (something static) rather than a process. "It is difficult for an individual to bring about change in habits, behaviour or life style."

So expecting behaviour change by simply telling someone, that he or she must stop using alcohol or drugs or to seek treatment is rather naive (and perhaps counterproductive) because they are not ready to change

This was the laymen's understanding about the individuals suffering from problematic drug or alcohol use. However, with the development of *stage of change* model by James Prochaska and Carlo DiClemente about four decades back, a new understanding in the field of behaviour change emerged. According to this theory:

- The behaviour change does not happen in one step. Rather, people tend to progress through different stages on their way to successful change.
- The rate/pace of progress through each stage varies from individual to individual.
- In each of the stages, a person has to grapple with a different set of issues and tasks that relate to changing behaviour.

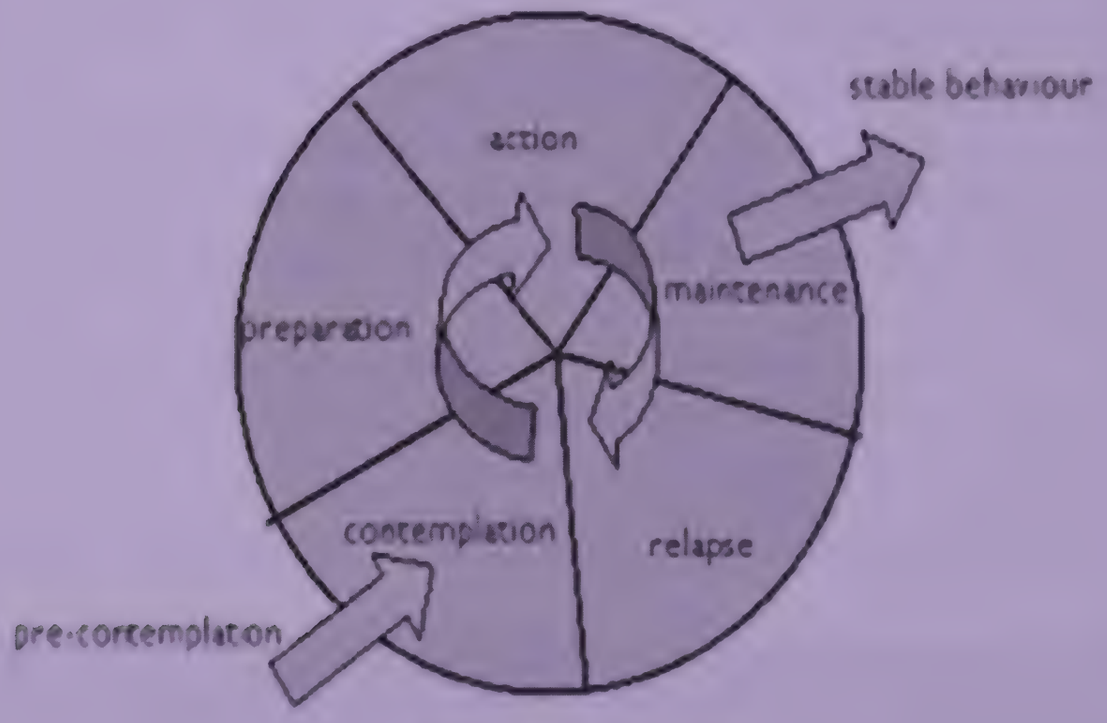
The Stages of Change

As per this model an individual in the change process goes through following stages:

Stage	Description	Example
Pre-contemplation	(Not yet acknowledging that there is a problem behaviour that needs to be changed)	*Arun, a daily drinker does not think that he has a problem with alcohol.*
Contemplation	(Acknowledging that there is a problem but not yet ready or sure of wanting to make a change).	*Arun understands that his drinking is causing him various problems but does not how to reduce / stop.*
Preparation	Preparing for change	*Arun has talked to a ASHA about where to find treatment to stop drinking.*
Action / Willpower	(Changing behaviour)	*Arun has consulted a doctor and started taking treatment*
Maintenance	(Maintaining the behaviour change)	*Arun has stopped drinking and taking regular treatment*
Relapse	Returning to older behaviours and abandoning the new changes.	*Arun has again started drinking in the same pattern as before. He does not take his treatment and does not go to the doctor.*

It is important to remember that the change is cyclic in nature and the movement can happen in any direction. *An individual in contemplation stage can move to action stage* or *someone from maintenance stage can slip back to contemplation stage.*

Let us understand this with the illustration:



Stages of change model

The role of the therapist is to guide an individual to move towards the higher stage of change as shown in the illustration.

Enabling someone who is in contemplation stage to take action

Motivation and its enhancement

It is important to remember that:

The important question however is **How to motivate an individual to cl behaviour?**

An individual can be motivated to bring about change in his behaviour by applying following strategies/techniques: *(a) Feedback, (b) Decision balancing, (c) Developing discrepancy,* and *(d) supporting self-efficacy.*

(a) Feedback:

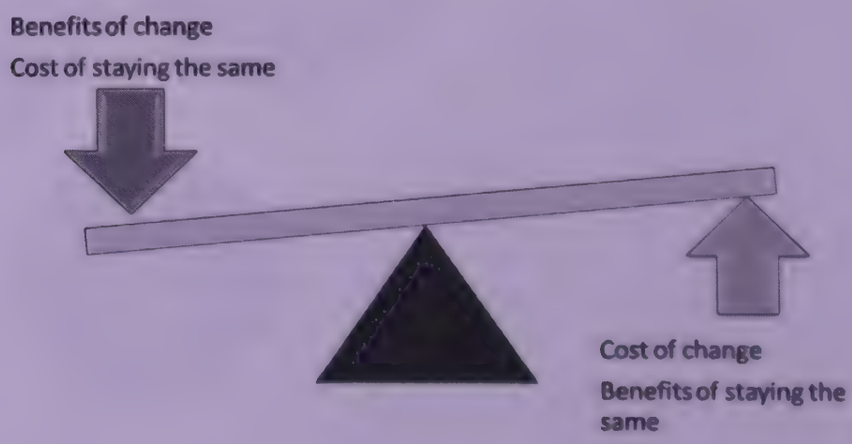
Personalised feedback of following negative Consequences of substance use help an individual to decide in favour of change:

- **Health**
- **Socio familial.**
- **Occupational.**
- **Financial.**
- **Legal**

The feedback should be based on the examples of the patient's life. Eliciting the harms the patient himself had experienced and reflecting it back to the patient works well.

(b) Decision balancing:

This is another commonly used strategy for motivation enhancement. The individual is enabled to weigh the benefits of change vis a vis benefits of staying the same and compare it with cost of staying the same vis a vis cost of change ,and take the decision whether to change or stay the same.



This cost benefit analysis can be done typically by using the cost benefit table as shown here:

Enabling the patient to do a cost benefit analysis of his alcohol and substance use.

	Benefits	Costs
Short term		
Long term		

1. **Consequences of inaction:** Enable the patient to think what his life would be in terms of consequences, if he continues to use alcohol or drugs

2. **Discuss positive aspects associated with the change in behaviour.** It would be of help for the patient to decide in favour of change if he is enabled to visualise the benefits of changing his behaviour

(c) *Developing discrepancy:*

Enable the patient to compare his quality of life with his non user friends and relatives, and help him to think where he is vis a vis where he wanted to be.

Discuss Life goals of the patient and how drug use can hamper in achieving these.

(d) *Supporting self efficacy*:

Instilling hope by telling the patient that the goal is achievable and "you can do it" helps.
Make the patient believe that he can do it

Some individuals do not attempt behaviour change thinking that the goal is too difficult to achieve.

Establishing Referral Pathways

Substance use affects almost all the aspects of individual life including health, family, social, occupational, housing, financial, and legal. To be effective the treatment must address all these needs of the patient. It is also important to understand that the treatment need of the patient is unique and needs individualized attention. It is difficult for any single organization to meet all the treatment need of the patient. It is therefore very important to have an established referral pathway. Professionals working in this area must keep a resource directory and establish linkage with the following institutions:

Health care facility for:

- General health problems.
- Voluntary counseling and treatment centre. For HIV/AIDS.
- Anti retroviral therapy centre for treatment of HIV/AIDS.
- DOTS centre for treatment of T.B.

NGOs and charitable organization for

- Vocational training and rehabilitation.
- Micro credit / microfinance/micro entrepreneurship
- Child care.
- Women empowerment.
- Housing (Night shelters, rain basera dharmshala, and religious institutions etc).

Faith based and spiritual organizations

- Alcoholic and Narcotic anonymous.
- Other faith based organization.

Psycho-education

Generally substance-use disorder treatment is viewed as a short-term solution, an event rather than a process. The general concept of treatment is detoxification only. These, and other myths, must be dispelled before meaningful treatment can begin, as they may influence treatment engagement and compliance.

It is important to educate the patient and family members about:

Nature of illness:

- Opioid dependence is a complex health condition (illness) that has social, psychological and health determinants and consequences.
- It is not a weakness of character or will.
- It is possible to come out of the illness and lead a normal life.
- The patient should be told that it is not difficult to quit substance-use, once a decision is made and treatment advices are adhered to.
- Although relapse is extremely common, it can be managed and prevented.

Treatment modality:

- Explain to the patient that the medication given to him will make quitting extremely easy by taking care of withdrawal symptoms and reduce craving.
- Explain that duration of treatment would be long and both medication and counselling are important.
- The patient should be enabled to believe that there is no harm in taking the support, if it is directed towards empowering him to manage his problem independently.

Treatment duration

- Remaining in treatment for an adequate period of time is the corner stone for treatment effectiveness.
- The appropriate duration of treatment for an individual depends on his problems and needs and the progress made by him.
- People, who leave treatment prematurely, invariably have high rates of relapse to drug-use and therefore, prolonged treatment is required (for a period of about 1 year, posibly more).

Need for active participation in treatment:

- Success in treatment depends upon the patient's participation in the treatment program.
- Participation in treatment and adherence includes pharmacological (taking medicines as prescribed) and psychosocial (attending intervention sessions).
- Therapist, instead of highlighting the negative consequences of noncompliance, should point out the positive consequences of active participation and adherence (e.g. longer the treatment contact, better will be the outcome).

- Active participation and adherence will enhance the patient's chances of remaining abstinent.
- Family plays an important role in ensuring treatment participation and adherence.

Rehabilitation (Psychosocial, Occupational and Financial)

The eventual goal of substance use disorder treatment is to reintegrate the individual into the mainstream of society. Additionally, the important goal is also enabling him to achieve social, financial and occupational functioning comparable to pre-drug-use level. Areas that relate to environmental issues, such as vocational rehabilitation, finding employment, and securing safe housing, fall within the purview of rehabilitation.

In order to facilitate rehabilitation

- Explain the patient's needs to reestablish himself as a productive and contributing member of society.
- Encourage the family to assist the patient for engaging himself in paid employment or self-employment.
- This might require financial assistance. Educate the family about organizations providing credit

Addressing stigma and discrimination

In our society, individuals suffering from substance-use disorder are often stigmatized. They are termed as 'addicts' (using the local derogatory terms as *bewda, smakiya, nashaedi, amli* etc.). The word "addict" brings to mind many negative images, and is generally associated with defects in character, criminality, and immorality. Many individuals restart drug use because of the stigma. It is important to prepare an individual face the stigma and handle it without resorting to substance use. This can be done by:

- Spreading awareness that drug use is an illness and anybody can be affected by it.
- Enabling the individual reclaim his potentials even if they are yet to emerge.
- Taking up pro-social behaviour.
- Assuring the patient that with the change in behaviour he can regain his status in the family and society.

and rehabilitation services for self-employment.

- Discuss issues like money- management and work-supervision.
- Enable the family members to invoke participation of secondary social support (relative and friends) and tertiary social support system for patient's employment and social reintegration.

The story of Sunil

Sunil is a 44 years old machine operator in a factory. He studied up to eighth standard. He stays in a small town with his wife and five children.

At the age of 22 years, Sunil attended a party where, upon his friends' insistence, he took a peg of whisky. He liked it and then started drinking whisky occasionally. Gradually, over a period of next 8 years the amount and frequency of his drinking started escalating. For last 12 years, he has been drinking daily. In fact for the last 5 years, first thing he does in the morning after waking-up is to look for whisky. He cannot do any work without drinking. There have been frequent quarrels in the family over his alcohol use as major share of his income goes in drinking. Often he gets violent and abusive towards wife and children. His two elder sons aged 14 and 12 years had to discontinue their schooling and are currently working as auto mechanics. He misses going to work frequently and has received several warnings from employers also about his drinking at the factory and absenteeism.

Sunil's wife, brothers and other relatives have tried to persuade him to stop drinking but without any success. He would always down play his drinking saying that "I can leave it any time I want." He blames his wife for non-cooperation and blames relatives for interference in his personal affairs. In fact his wife was so fed up with his deteriorating health, constant fights at home, severe financial crisis and alienation from relatives that she along with the children went to her parent's place.

One day, Salma, an Accredited Social Health Activists (ASHA), went to Sunil's house to inform about the next immunization camp in the locality. She found Sunil at home, who was looking very weak and pale. Salma was aware of his drinking problem and having recently attended a training program for managing alcohol use, she decided to talk to Sunil about his alcohol use. Initially he denied and minimized the problem, but Salma managed to make him think over the harms alcohol use has caused to him and the consequences of continuing to use it. She explained it to him that excessive alcohol use is a treatable illness like any other medical illness. She also informed him of the treatment facility, which was available right at the neighborhood Community Health Centre. She told him about many others like him who were seeking treatment and were getting benefited by it. She instilled hope in Sunil by telling him that "You can also come out of this illness." She extended full support for facilitating the treatment by providing him a referral to the CHC.

Finally, Sunil agreed to consult the doctor at CHC where his treatment was initiated and message to his wife was sent about the initiation of treatment. She joined him on the condition that he would continue his efforts and follow the instructions of the doctor regularly.

Now, it has been three months that Sunil has stopped drinking and is regular in his follow-up and taking medicines. He has been going to his work regularly and is very thankful to Salma (the ASHA) for the direction and support he received from her. He thinks that he owes the turnaround in his life to Salma *Didi* (the ASHA). ***(Hypothetical Story)***

Relapse Prevention and Management

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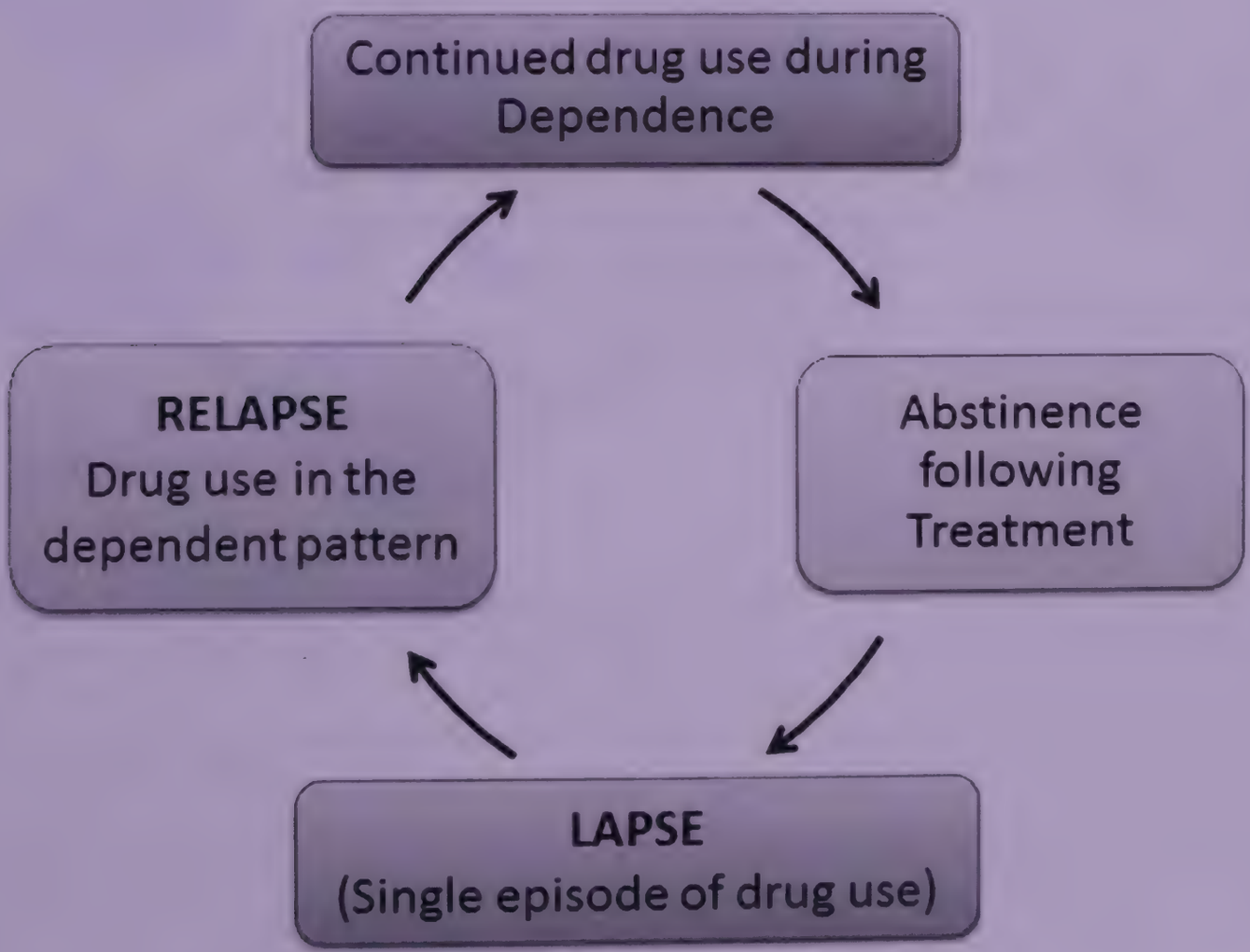
The period soon after initiating abstinence is a difficult one for a person dependent on drugs or alcohol. It is associated with a high risk of relapse. The greatest risk for relapse is in the initial months after treatment, and the risk for relapse reduces over the next few months. Here it is important to differentiate between *Lapse* and *Relapse*. The term *lapse* refers to initial episode of alcohol or other drug use following a period of abstinence, whereas the term *relapse* refers to failure to maintain behavior changes over time and resumption of drug or alcohol use on a regular basis (see figure). Relapse prevention, anticipation and management are important techniques that along with medication help in reducing the risk of relapse.



Preventing relapse

Interventions that focus on relapse prevention have been found beneficial for maintaining the effects of treatment during follow up periods. These strategies include monitoring substance use, identifying high risk situations, discussing how to cope with high risk situations and life style change.

High risk situations and Coping strategies

The counselor and the patient together compile a list of the conditions or situations which increase the risk of relapse to drug use, or "high risk situations".

Typical high risk situations include the availability of money, contact with other drug using friends, leisure time, sight and smell of the drug, urges and temptations, positive and negative emotional states and co-morbid conditions. For teenagers, direct and indirect social pressure appears to be more important factors in initial relapse situations. For adults, negative intrapersonal states and interpersonal situations appear to be the primary precursors to relapse. Although the acute phase of withdrawal lasts for a few days, mild withdrawal ('protracted withdrawal') may last longer. This may include sleep difficulties, low mood, lethargy etc. This, along with craving may partly contribute to the difficulty in maintaining abstinence. Once the high risk situations are identified, the therapist and patient can explore the coping strategies which are most effective and comfortable for that patient and examine together any difficulties the patient may have in implementing skills learned in treatment.

Various "triggers" can put people at risk of relapsing into old patterns of substance use. Causes of relapse can differ for each person. Some common ones include:

- Negative emotional states (such as anger, sadness)
- Positive emotional states or when celebrating
- Physical discomfort (such as withdrawal symptoms or physical pain)
- Testing personal control ("I can have just one drink")
- Strong temptations or urges (cravings to use)
- Conflict with others (such as an argument with a spouse or partner)/ expression of mistrust by family
- Social pressures to use (situations where a person alcohol or drug is offered)

Below are listed some of the **coping strategies** people adopt when facing the high risk situations:

- Staying away from people who use drugs
- Staying away from places which are associated with drug use
- Change of place
- Reducing the level of activity or work to a more comfortable level
- Not keeping drugs at home
- Being in company of people who do not use /are not using drugs
- Leaving money at home, carrying very little money with oneself
- Telling oneself of the consequences of drug use and about the increased risk of relapse that may be associated with a single instance of use
- Telling oneself the benefits of not taking drugs
- Handling feelings of anger and frustration directly and not resorting to drug use
- Understanding that it will take time for the family/friends to develop trust again
- Talking to friends
- Avoiding conflict
- Keeping oneself busy
- Developing alternative sources of pleasure or high
- Being regular in follow-up

Craving management

There are certain techniques for managing craving. The advice is given to avoid people, places and things associated with substance abuse as a way of minimizing exposure to cues that trigger craving. Because it is impossible for patients to avoid all cues that are associated with substance use, we can teach the patients a variety of practical techniques to manage craving. Patients should learn information about cues and how they trigger craving for alcohol or other drugs. Monitoring and recording craving,

associated thoughts, and outcomes can help patients become more vigilant and prepared to cope with them.

Helpful interventions for managing craving include:

- Avoiding, leaving, or changing situations that trigger or worsen craving
- Changing thoughts about the desire to use
- Challenging the memory that drug use led to a high
- Talking oneself through the craving
- Redirecting activities or getting involved in pleasant activities
- Eating or drinking something else
- Getting help or support from others by admitting and talking about craving and hearing how others have survived it
- Thinking beyond the high by identifying negative consequences of using (immediate and delayed) and positive benefits of not using
- Delaying the decision to use

Working with the Family

The family should be involved in treatment after taking the patient's consent. The family often experiences lot of distress or problems due to drug use. Family members often need support. Allowing them to talk of the problems experienced and their distress may itself be a relief. Instillation of hope is important and providing the information that treatment helps may itself encourage the family to get involved in treatment.

The family needs to be informed about the process of treatment and recovery as well as need for long term treatment. They should be informed about the high risk situations and their role in supporting the patient to deal with high risk situations.

Often this may be very difficult for a family that is already burdened with the problems associated with drug use (financial, legal and emotional). If in spite of

The role of family includes

- Providing support to the patient after the treatment is initiated
- Understanding that recovery is a slow and prolonged process
- Avoiding critical comments by referring to the past (referring to drug use or problems created by it)
- Avoiding conflict as far as possible after the treatment is initiated
- Monitoring the patient and helping him to stay away from people who use drugs and from places associated with drug use
- Encouraging the patient to work or be involved in alternative recreational activities
- Encouraging the patient to come regularly for follow-up
- Monitoring compliance to medication
- Facilitating quick re-entry into treatment in case of relapse

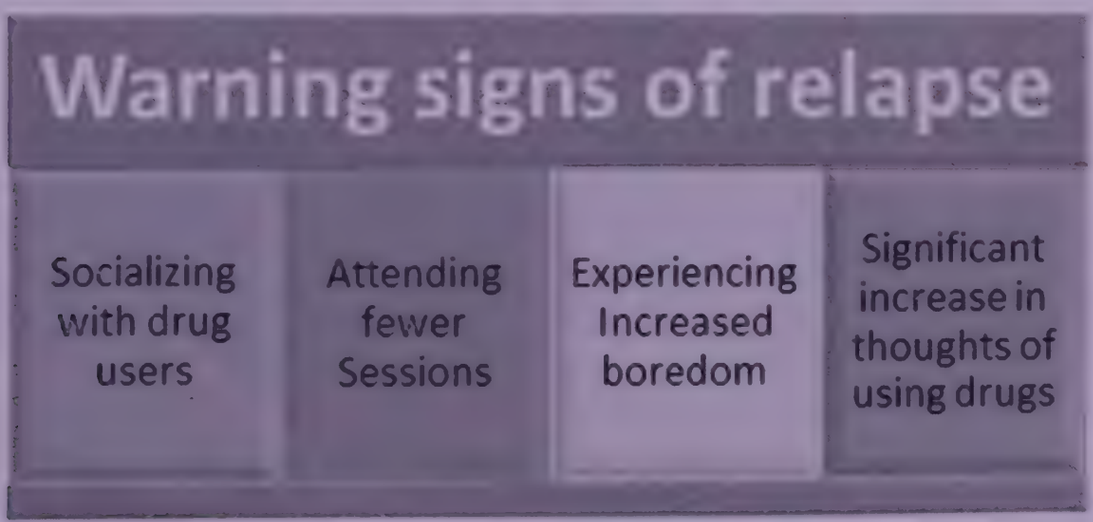
repeated efforts the family is not interested in being involved in treatment, then their wishes must be respected.

Lifestyle change

The reduction of substance use is a necessary but not sufficient criterion for treatment success. Lifestyle changes should be encouraged which include working gainfully, giving up illegal activities if the patient was involved in them, developing alternative sources of pleasure, being involved in family issues and taking on responsibility in the family as well as working gainfully. This process may be slow and tedious for the patient and the counselor should provide encouragement and appreciation for the progress made. The counselor should also support the patient when he feels that progress is being made too slowly or when there are setbacks in this process.

Anticipating relapse

Relapse can be viewed not only as the event of resumption of a pattern of substance abuse or dependence but also as a process in which indicators or warning signs appear prior to the individual's actual substance use. Individuals with substance use disorders face the possibility of relapse once they have initiated cessation of alcohol or other drug use. There are certain warning signs associated with relapse. A few common examples of obvious relapse warning signs include:



The family has an important role in identifying the early warning signs of relapse.

Managing relapse

It can be hard to reduce or stop substance use. It's not surprising, then, that people who make these changes may return to problem drinking or drug use. Relapse can be discouraging. It can make people feel vulnerable and weak. It can make recovery seem

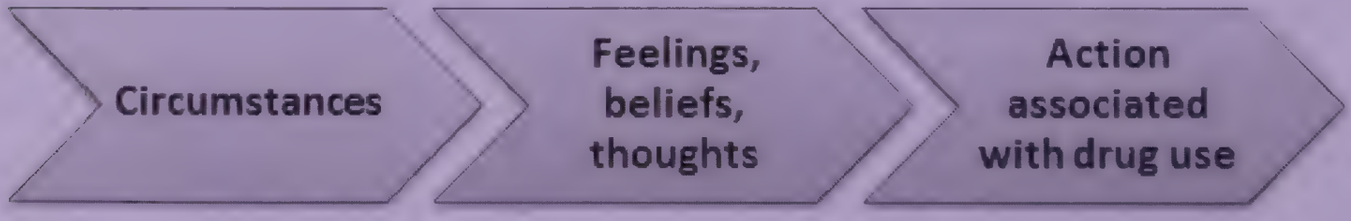
like an impossible dream. When relapse happens, it should be regarded as a temporary setback, the patient should be taught to learn from it and not see it as a failure.

Techniques to be used with a patient who lapses or relapses are

- Providing support to the patient and the family
- Focusing on progress made during period of abstinence that may include-
    - Using less of a drug or using less often
    - Positive lifestyle changes
    - Reducing or eliminating other high-risk behaviors.
- Starting treatment again as soon as possible
- Identification of factors that led to relapse and discussion relapse prevention
- Providing support to the patient and the family
- Facilitating quick re-entry into treatment in case of relapse

Identifying the chain of events that led to relapse

The chain of events associated with substance use include particular circumstances, feelings, beliefs, thoughts and actions associated with drug use or precursors of drug use. Examples include: what were you doing prior to the drug use? What was going on around you? What were you feeling? What were you thinking at that time? How did you permit yourself for initiating this process?



Role of a good patient-counselor relationship

It is important to develop a positive relationship with the patient and the family. This means that the counselor should be perceived as a well-wisher and as someone who cares and is available in case of crisis. This can provide support to the patient and the family, alleviate distress, facilitate retention in treatment, rehabilitation and early seeking of treatment in case of relapse. The importance of a good patient-counselor relationship cannot be over-emphasized.

Key Messages

- Substance use disorder is associated with a high risk of relapse
- Relapse prevention, anticipation and management are important techniques
- Relapse prevention includes identification of high risk situations and ways of coping with them. Learning how to mange craving is also important.
- Anticipating relapse means picking up the initial signs that may lead to a lapse or a relapse.
- Relapse management means identifying relapse early and bringing the patient into treatment. The focus should be on progress made during the period of abstinence, restarting treatment and identifying factors that led to relapse.
- The role of the family in relapse prevention and management is important.
- Patient-counselor relationship is important in all this

ROLE OF HEALTH WORKERS AND HEALTH VOLUNTEERS IN SUBSTANCE USE

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India has made substantial progress in the health sector since independence. This progress is a cumulative result of several inter-connected changes. The improved coverage and efficiency of public health delivery system as well as expanding private health sector have contributed in equal measures in ameliorating the sufferings associated with adverse health events.

At the same time, India is experiencing a rapid health transition with large and rising burden of chronic non-communicable diseases including substance use. As a result, development of substance use services in the country is being increasingly seen as an emerging health priority. It has been demonstrated that it is possible to deliver substance use treatment services in primary health care settings. For the purpose primary care physicians and other health professional (such as health workers and health volunteers) could be trained. They can play a vital role in early diagnosis, treatment, follow-up and prevention of mental health problems including substance use.

A closer look at the organization of health services in the rural and urban areas will explain the types of health workers and health volunteers available in the country. The attached table shows the Organization of health services in government sector in rural areas of India.

Health Workers (Paramedical Staff) currently available:

In a community development block, a Community Health Centre (CHC) and 3-4 Primary Health Centres (PHCs) are present. Under each PHC, 5-6 sub-centres provide primary health care services. One Multi-purpose Worker (Male) and one Multi-purpose Worker (female) are posted at each sub-centre. One Health Assistant (Male) and one Health Assistant (Female) or the Lady Health Visitor (LHV) supervise the work of 4-5 sub-centres. Under the ambitious National Rural Health Mission (NRHM) of Govt. of India, health volunteers were added to the existing system such as the Accredited Social Health Activist (ASHA).

Level & Health Facility	Health Care Professionals Available	Population Covered
Medical Colleges /Apex Institutes *(at State Level)*	Specialists No. of Beds = Variable	Variable
District Hospital *(at District level)*	General Duty Medical Officers & Specialists No. of Beds = 200 to 600	1 : 15,00,000 to 17,00,000
↑ Sub-Divisional Hospital # *(at Sub-Division level)*	General Duty Medical Officers & Specialists No. of Beds = variable	1 : 3,00,000 to 4,00,000
↑ Community Health Centre (CHC) *(at Block level)*	Medical Officers and Specialists of Surgery, Medicine. Obs-Gynae and Pediatrics No. of Beds = 30	1 : 1,00,000 to 1,20,000
↑ Primary Health Centre (PHC) (at Sector level)	Medical Officer (1) & 14 other Staff No. of Beds= 4-6	1 : 30,000* / 20,000**
↑ Sub-Centre (SC) *(at group of villages level)*	MPW (M) – 1 MPW (F) – 1 } Supervised by Health Assistants (Under the NRHM, an additional Auxillary Nurse Midwife has been provided on contractual basis)	1 : 5,000* / 3,000**
↑ Village level	Anganwadi Worker (1), Accredited Social Health Activist (ASHA) – 1 Village Health Guide (VHG) -1 Trained Traditional Birth Attendant (TTBA) – 1	1 : 1000*

 # Present in some states

↑ = Referral Linkages

**** = In plains***

***** = In hilly & tribal areas***

At the village level, four different types of health volunteers (ASHA, AWW, VHG AND TTBA) - usually recruited from the village itself - act as links between health workers and the villages. These volunteers are not employees of the health department. Their role is very crucial as they are in direct touch with the community on one side and the health care system on the other. It is to be noted that the Sub-centre is the first peripheral contact point between the primary health care system and the community. The PHC is the first contact point between a village community and a doctor.

As can be seen, the rural health services are well structured and have good referral linkages. Thus a villager living in a remote area can have access to the best of tertiary

health care in the nearest medical colleges/ apex institutions such as the All India Institute of Medical Sciences (AIIMS).

Role of Health Workers and Health Volunteers in Substance Use

Strategies to control and prevent Substance Use

These essentially focus on:

- Early recognition
- De-addiction/ Drug-dependence treatment
- Follow up for assuring compliance to treatment and prevention of lapse and relapse.
- Support to the affected persons & their families through Counseling.
- Information, Education & Communication (IEC) to prevent initiation of Substance Use.

In almost all the above mentioned areas, health workers and volunteers can play a crucial role. The reasons are:

- As these workers are in **direct and continuous contact** with the individuals and families in the communities and often act as friends, philosophers, guides and confidants to them, they are in a unique position to play a crucial role.

- These workers usually **belong to the communities they serve** and hence they have very good rapport with the local self governments (Panchayats or slum society etc.)

- They are **trained to perform their duties** and are amenable to more specific trainings such as required for implementation for prevention and control of Substance Use.

- They often **have good records/ data base of the families** likely to be vulnerable for substance use.

- They **visit the families regularly** for providing other primary health care services including school health services and can be important functionaries for de-addiction programmes.

- They are the **links between the communities and the health systems** and are often available round the clock to individuals.

- They are **acceptable to the communities** and their advices are often given serious attention by the communities.

What can the Health Workers and Health Volunteers do for Substance Use?

Role in Primary Prevention

- Assessment of Community needs (for example if the heath workers finds out that most adolescents in the community start with inhalant use, than the awareness building measures for inhalant use can be instituted)
- Identification of high risk individuals.
- Counseling and education of such individuals.
- Handling crisis situations in the families.
- Providing moral support.
- Organizing and participating IEC/ Awareness programmes for various groups such as high risk groups and schools.
- Linkages & Coordination with governmental health systems and non-governmental organization.
- Creation and operationalizing self help groups.

Secondary Prevention

The health workers and health volunteers can help in **early diagnosis** (case finding / screening) and treatment of cases including **referrals** to appropriate treatment Centres. Various Screening Tools are available for identifying people who may be addicted to alcohol or substances. The health workers can be trained to use these tools.

Through their routine work, they can keep a follow up of cases on treatment and prevent lapses/ relapses.

Community Mobilization: Through this process, the communities take required steps to bring people together to facilitate a program. The health workers can be instrumental in community mobilization by enlisting support from local, religious and opinion leaders of the communities.

Role in Tertiary Prevention

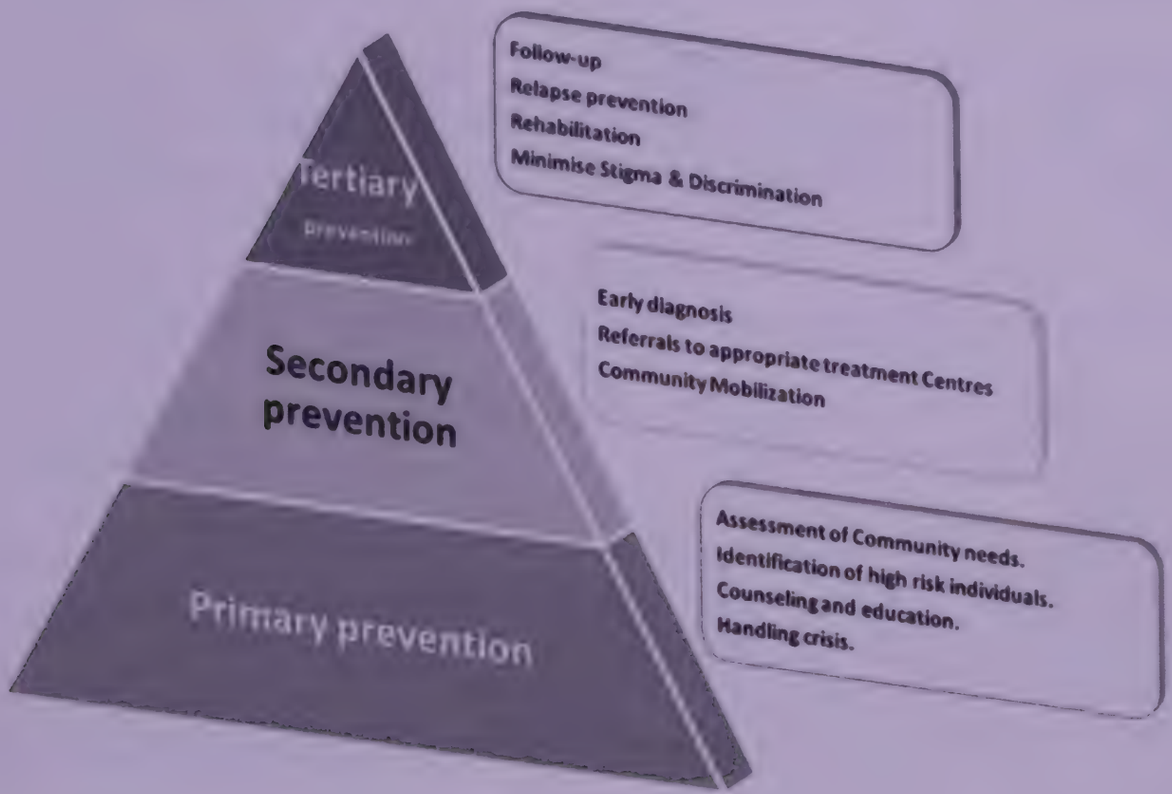
Tertiary prevention activities attempt to reduce disabilities through rehabilitation and thus help the person to return to the highest level of functioning.

The health workers and health volunteers can play an important role in the rehabilitation and disability limitation efforts by:

- Helping the patient to identify substance abuse behavior and its consequences.
- Offering constant support to the patients.
- Helping the patient to realize her/ his strength to overcome her/ his problem.
- Encouraging the patients to participate in treatment programme and continue.
- Referring the patients to appropriate agencies and organizations for seeking economic support for starting some vocation.
- Minimizing the stigmatization and discrimination against the patient by the community.
- Working in close liaison with governmental and non-governmental organizations for rehabilitation of the patients.

Conclusions

In brief, despite their existing workload, the health workers and health volunteers can be of vital importance in prevention, treatment and control of substance use in rural and urban areas. They can be pillars of all community based de-addiction programmes.



Appendix I: Assessment tools (format for History & Examination and Screening Instruments)

A. Format for History & Examination

1. History

Assessment begins with collection of

a. Patient's socio demographic profile i.e. name, age, sex, marital status, qualification, occupation, type of family and place of residence. Ideally, a record should be maintained so that the paramedical functionary can access the patient at various stages of treatment.

b. Details of drug use are then inquired into .This includes

1. age of initiation
2. various drugs used
3. route of intake
4. frequency of drugs used
5. the quantity of drug taken (usual dose)
6. the time lag since the dose last
7. need to increase the quantity of drug consumed in order to produce the same effect (tolerance)
8. the effect of the use of a particular drug and signs and symptoms of intoxication
9. presence/ absence of physiological /psychological symptoms and signs when the particular drug is not taken/ less than the usual amount of drug is being taken(withdrawals)
10. compelling need/ urge to take the substance (craving)

c. Complications associated with drug uses should be inquired. This can be in various spheres of patients' life and guides the treating team on areas to be focused during rehabilitation. The areas probed are

1 .Physical: long term health hazards associated with drug use
2. Psychological: chronic mental effects of continuous use of drug
3. Financial: losses suffered/debts incurred

4. Occupational: frequent absenteeism at work, constant change of job, memo issued, periods of unemployment
5. Familial – social: frequent fight with spouse/ other family members, neglect of responsibility at home, social outcast
6. Legal: involvement in illegal activities to sustain drug use, arrests/ charges on account of drug use, caught driving under intoxicated state, violence under the influence of the drug.

d. High risk behaviors: presence of injection use with needle sharing and unsafe sexual practices

e. Past abstinence attempts: herein inquiry should be made regarding

1. number of attempts made
2. duration of each attempt
3. reason for abstinence
4. whether treatment sought
5. nature of treatment sought: pharmacological, psychological or combined
6. reason for relapse

f. Psychiatric illnesses such as a mood disorder, psychotic disorder and personality disorder/ traits are common comorbid conditions accompanying substance use disorder. This information is important to plan an effective intervention. Though the paramedical functionary cannot be expected to do a comprehensive mental status examination, he can be equipped to pick up symptoms of mental illness.

g. Presence of family history of drug abuse, psychiatric illness and the current living arrangements. Extent of social support should be assessed.

h. Premorbid personality: especially presence/absence of behaviours suggestive of an 'Antosocial personality'.

This information can be communicated to the treating physician and would be very helpful in deciding a treatment plan. This would also assist to plan measures to be taken to prevent relapses

2. Physical examination

1. Evidence of drug use with respect to
a) Intoxication,

b) Withdrawals and
c) Route of drug use as evidenced by burn marks/ nicotine stains on fingers in cigarette use and heroin by inhalational route; injection marks in case of injection drug use (IDU).

A detailed physical examination would be in the domain of the treating physician.

3. Mental status examination

Though a detailed mental status examination may not be possible, the general appearance and behavior of the patient (dressing, grooming, mannerism, motor activity, and eye contact), the nature of his affect(mood: happy, sad, anxious), speech (rate, volume, pitch, coherence, relevance) and the content of the patient's thought (depressive thought, suicidal ideas) should be assessed and recorded.

Finally, the motivation level of the patient is assessed. This can be assessed by inquiring into the reasons for seeking treatment. Patient may be intrinsically motivated when he understands his responsibilities, feels guilty and wants to reverse damage due to substance use or realizes the extent of health damage this habit has caused and wants to lead a healthy life again. The motivation may be extrinsic like lack of money or pressure from the family members. No matter what, every attempt should be made to enhance motivation.

B. The Alcohol Use Disorders Identification Test

Read questions as written. Record answers carefully. Begin the AUDIT by saying "Now I am going to ask you some questions about your use of alcoholic beverages during this past year." Explain what is meant by "alcoholic beverages" by using local examples of beer, wine, vodka, etc. Code answers in terms of "standard drinks". Place the correct answer number in the box at the right.

1. How often do you have a drink containing alcohol?

(0) Never [Skip to Qs 9-10]
(1) Monthly or less
(2) 2 to 4 times a month
(3) 2 to 3 times a week
(4) 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

(0) 1 or 2
(1) 3 or 4
(2) 5 or 6
(3) 7, 8, or 9
(4) 10 or more

3. How often do you have six or more drinks on one occasion?

(0) Never
(1) Less than monthly
(2) Monthly
(3) Weekly
(4) Daily or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you had started?

(0) Never
(1) Less than monthly
(2) Monthly
(3) Weekly
(4) Daily or almost daily

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

(0) Never
(1) Less than monthly
(2) Monthly
(3) Weekly
(4) Daily or almost daily

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

(0) Never
(1) Less than monthly
(2) Monthly
(3) Weekly
(4) Daily or almost daily

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

(0) Never
(1) Less than monthly
(2) Monthly
(3) Weekly
(4) Daily or almost daily

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

(0) Never
(1) Less than monthly
(2) Monthly
(3) Weekly
(4) Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

(0) No
(2) Yes, but not in the last year
(4) Yes, during the last year

10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?

(0) No

(2) Yes, but not in the last year

(4) Yes, during the last year

Skip to Questions 9 and 10 if Total Score for Questions 2 and 3 = 0

Interpretation of AUDIT scores: Total scores of 8 or more are recommended as indicators of hazardous and harmful alcohol use, as well as possible alcohol dependence. AUDIT scores in the range of 8-15 represent medium level of alcohol problems whereas scores of 16 and above represented a high level of alcohol problems.

C. The CAGE Questionnaire

This is best used in a clinical setting as part of a general clinical history taking, and may be phrased informally.

1. Have you ever felt you should **C**ut down on your drinking?

2. Have people **A**nnoyed you by criticizing your drinking?

3. Have you ever felt bad or **G**uilty about your drinking?

4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (**E**ye opener)?

A "Yes" answer to any two questions strongly suggests a problematic alcohol use (i.e. alcohol abuse / harmful use or alcohol dependence).

Appendix II: PROPOSED AGENDA

Training Programme for Paramedical staff on Substance Use

Day 1:

Time	Topic	Mode of training / Trainer *
10:00 – 11:00	Registration • Pre-course assessment (in the form of discussion) • Course expectations Inauguration Ceremony	
11:00 – 11:30	*Tea Break*	
11:30 – 12:00	• Outline of the training programme	
12:00 – 12:30	• Substance Use: Introduction and Overview	Presentation and Discussion
12:30 – 13:30	• Substance Use: Health and Psychosocial consequences	Presentation and Discussion
13:30 – 14:30	*Lunch Break*	
14:30 – 15:15	• Assessment of substance use • Identification of people with substance use problems	Presentation and Discussion
15:15 – 15:30	*Tea Break*	
15:30 – 17:00	• Case demonstration(s)[$] *(Assessment)*	Live Demonstration

Day 2:

10:00 – 11:00	• Treatment of Substance use disorders: Principles and Overview	Presentation and Discussion
11:00 – 11:15	*Tea Break*	
11:15 – 13:00	• Treatment for substance use disorders: Role of paramedical personnel	Presentation and Discussion
13:00 – 14:00	*Lunch Break*	
14:00 – 15:00	Psychosocial interventions for substance use problems-I • Motivation Enhancement	Role play / Discussion aided by AV aids (presentation)
15:00 – 15:15	*Tea Break*	
15:15 – 16:15	Psychosocial interventions for substance use problems-II • Brief Interventions	Role play / Discussion aided by AV aids (presentation)

* Since there are likely to be language problems, at least one facilitator should have proficiency in English and Hindi/local language

[$] Some patients from the local community who have substance use problems should be motivated to get assessed in front of the group. This preparation should be done beforehand with their consent.

Day 3:

Time	Topic	Mode of training / Trainer *
10:00 – 11:00	**Psychosocial interventions for substance use problems-III** • **Psycho-education / working with the family of substance user** • **Relapse: Prevention and Management**	**Role play / Discussion aided by AV aids (presentation)**
11:00 – 11:15	***Tea Break***	
11:15 – 13:00	**Case demonstration(s)** ***(Intervention)***	**Live Demonstration**
13:00 – 14:00	***Lunch Break***	
14:00 – 15:30	Group work followed by presentation by the trainees – Plan of activities by paramedical staff for **Improving access to Substance use treatment services**	***To be Facilitated and Moderated by resource persons***
15:30 – 16:00	***Tea***	
16:00 – 17:30	• **Final session** ○ *Establishing referral network for substance use* ○ *Feedback on training* ○ *Valedictory session* ○ *Any other locally pertinent issue*	***To be Facilitated and Moderated by resource persons***

Appendix III: List of De-Addiction centers under the Ministry of Health and Family Welfare, Government of India

Central Institute/Hospitals

1. All India Institute of Medical Sciences,New Delhi
2. Dr.R.M.L.Hospital, New Delhi
3. Lady Hardinge Medical College &Hospital, New Delhi
4. P.G.I.M.E.R., Chandigarh
5. J.I.P.M.E.R., Pondicherry
6. NIMHANS, Bangalore

Centres of Excellence (Funded by UNDCP)

7. K.E.M. Hospital, Bombay
8. I.P.G.M.E.R., Calcutta

Andhra Pradesh

9. Osmania General Hospital (Shifted toInstitute of mental health,Hyderabad), Hyderabad
10. SVRRGG Hospital, Tirupati
11. Govt. General Hospital, Warangal

Assam

12. Guwahati Medical College, Guwahati
13. Assam Medical College, Dibrugarh
14. Silchar Medical College, Silchar
15. District Hospital, Johrat
16. Civil Hospital, Dhubri
17. Civil Hospital, Diphu
18. Civil Hospital, Tejpur
19. Civil Hospital, Karimganj
20. Civil Hospital, Nalbari
21. Civil Hospital, Nagaon

Chandigarh Administration

22. Govt. Medical College, Chandigarh

Delhi

23. Central Jail, Tihar, New Delhi
24. Institute of Human Behaviour & Al-lied Sciences, Delhi

Gujarat

25. Medical College, Baroda
26. Medical College, Ahmedabad

Goa

27. Asilo Hospital, Mapusa (Goa)

Haryana

28. Medical College Rohtak
29. District Hospital, Ambala

Himachal Pradesh

30. Indira Gandhi Medical College, Shimla
31. District Hospital, Mandi
32. District Hospital, Dharamshala

Jammu & Kashmir

33. Medical College, Jammu
34. Medical College, Srinagar
35. District Hospital, Baramulla
36. District Hospital, Kathua

Karnataka

37. Govt. Medical College, Bangalore

Kerala

38. Govt. Medical College, Trivandrum
39. General Hospital, Erankulam
40. Medical Collge, Kottayam
41. Medical Collge, Kozhikode
42. Medical College, Trissur
43. Academy of medical Sciences,Pariyaram, Kannur, Kerala

Madhya Pradesh

44. District Hospital, Mandsaur
45. District Hospital, Ratlam
46. District Hospital, Ujjain
47. District Hospital, Indore
48. District Hospital, Gwalior
49. District Hospital, Jabalpur

Chattisgarh

50. District Hospital, Raipur

Maharashtra

51. Mahatma Gandhi Institute of MedicalSciences, Sevagram, Wardhi
52. District Hospital, Nasik

Manipur

53. Regional Institute of Medical Sciences,Imphal
54. District Hospital, Imphal
55. District Hospital, Sajiva
56. District Hospital, Chandel
57. District Hospital, Churachandpur
58. District Hospital, Ukhrul
59. District Hospital, Moreh
60. District Hospital, Thoubal
61. District Hospital, Bishnupur
62. District Hospital, Senapati
63. District Hospital, Tamenglong

Meghalaya

64. District Hospital, shillong

Mizoram

65. District Hospital, Aizawal
66. District Hospital, Lunglei
67. District Hospital, Saiha
68. District Hospital, Champhai
69. District Hospital, Serchhip
70. District Hospital, Lawngtlai

Nagaland

71. Naga Hospital, Kohima
72. District Hospital, Mukokchung
73. District Hospital, Tuensang
74. Civil Hospital, Dimapur
75. Civil Hospital, Wokha
76. Civil Hospital, Mon
77. District Hospital, Zunheboto
78. District Hospital, Phek

Orissa

79. S.C.B.Medical College, Cuttack

Pondicherry

80. General Hospital, Karaikal
81. Govt. General Hospital, Pondicherry

Punjab

82. Medical College, Patiala
83. Medical College, Amritsar
84. District Hospital, Bhatinda
85. Medical College, Faridkot

Rajasthan

86. SMS Medical College, Jaipur
87. Medical College, Udaipur
88. Medical College, Jodhpur
89. Medical College, Kota
90. Medical College, Ajmer
91. Medical College, Bikaner

Sikkim

92. STNM Hospital, Gangtok
93. District Hospital, Namchi
94. District Hospital, Gyalshing(W.Sikkim)

Tamil Nadu

95. Madras Medical College, Madras
96. Medical College, Madurai
97. Govt. Headquarters Hospital, Nagercoil
98. Govt. Stanley medical College and Hospital, Chennai
99. Govt. Medical College and Hospital,Coimbatore
100. Govt. Medical College and Hospital,Tirunelveli
101. Govt Mohan Kumaramangalalm Medi-cal College and Hospital, Salem
102. Govt. Medical College and Hospital,Thanjavur
103. Govt. Medical College and Hospital,Tuticorin
104. Govt. Kilpauk Medical College andHospital, Chennai
105. Govt. Chengaipattu Medical Collegeand Hospital, Chengaipattu
106. Govt. KAP Viswanathan Medical Col-lege Hospiatl, Tirichirapalli

Tripura

107. Kumarghar Rural Hospital, Darchai

Uttar Pradesh

108. Institute of medical Sciences, BanarasHindu University, Varanasi
109. Gorakhpur Medical College,Gorakhpur
110. King George Medical College,Lucknow
111. Medical College, Meerut

Uttranchal

112. Base Hospital Sringar, Garhwal

West Bengal

113. North Bengal Medical College, Siliguri
114. Burdwan Medical College, Burdwan
115. Bankura Medical College, Bankura

Arunachal Pradesh

116. District Hospital, Tezu
117. District Hospital Changlang
118. District Hospital, Khonsa

Bihar

119. Jawaharlal Nehru Medical College,Bhagalpur,
120. Shri Krishna Medical College,Muzaffarpur
121. Anurag Narayan Medical College,Gaya
122. Sadar Hospital, Munger

Glossary

Abstinence: Discontinuation and avoidance of further use of a substance.

Abuse: This term essentially connotes a pattern of unhealthy, prolonged consumption of a substance, which interferes with social, occupational, or personal functioning of an individual.(N.B: The word 'abuse' when used non-specifically may cover both abuse and dependence phenomena.

AIDS: Acquired Immunodeficiency Syndrome

Alcoholics Anonymous (AA): A voluntary fellowship concerned with the recovery and continued sobriety of the alcoholic.

Alcoholism: Synonymous with alcohol dependence

Aversive Conditioning: A form of behavior therapy that is used to reduce the occurrence of undesirable behavior, such as sexual deviations or drug addiction. Conditioning is used, with repeated pairing of some unpleasant stimulus with a stimulus related to the undesirable behavior. An example is pairing the taste of beer with electric shock in the treatment of alcoholism.

Biofeedback: Use of a signal, such as muscle tension, to control a normal involuntary physiological process.

Cirrhosis: Chronic liver disease marked by scarring of liver tissue and eventually liver failure.

Classical Conditioning: In classical conditioning, an unconditioned stimulus is paired with a natural reinforcement. The response which was initially produced by the reinforcement becomes conditioned so that it occurs when the unconditioned stimulus is given (even when no natural reinforcement is given).

Codeine: a natural product of opium (0.5% of the opium extract). Structurally, it is related to morphine but less potent.

Community: A community usually refers to a group of people who interact and share certain things as a group (e.g. sharing an environment, belief, resources, preferences, needs or risks) affecting the identity of the participants and their degree of adhesion.

Co-morbidity: Co-morbidity is defined as the presence, either simultaneously or in succession, of two or more specific disorders in an individual within a specified period.

Craving: A powerful, intense, often uncontrollable, desire for drugs.

Crisis Intervention: Intervention provided when a crisis exists to the extent that the usual coping resources threaten individual or family functioning.

Cross Dependence: Condition in which one substance can prevent the withdrawal symptoms associated with physical dependence on a different substance.

Cross Tolerance: Condition in which tolerance of one substance results in a lessened response to another substance.

Delirium: an etiologically non-specific syndrome of accute onset characterised by concurrent disturbances of consciousness and attention, perception, thinking, memory, psychomotor behaviour, emotion and the sleep-

Glossary

wake cycle.

Dementia: a syndrome due to the disease of the brain, usually of a chronic or progressive nature, in which there is a disturbance of multiple higher cortical functions, including memory, thinking, concentration, orientation, comprehension, calculation, learning capacity, language and judgement. However, the consciousness is not clouded.

Denial: Unconsciously refusing to admit that someone is abusing substance(s).

Dependence: A cluster of physiological, behavioural and cognitive phenomena in which use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value. (N.B: **Addiction** is a much older term than both 'abuse' and 'dependence'. It is now omitted from technical language because of its negative connotation. However, the term still is retained in popular usage. It denotes either abuse or dependence).

Detoxification: A process of withdrawing a person from a specific psychoactive substance depandence in a safe and effective manner.

Drug: any chemical which, when administered, alters the functioning of one or more systems of the organism.

Dual Diagnosis: Patients with a substance use disorder with a comorbid psychiatric manifestation.

DUI: Driving Under the Influence of alcohol or any substance, licit or illicit, if it impairs the driving function

Fetal Alcohol Syndrome (FAS): A pattern of birth defects, cardiac abnormalities, and developmental retardation seen in some babies of alcohol abusing and/or alcoholic mothers.

Hallucination: Perception of objects or experience of sensations with no real external cause; can be auditory, visual, olfactory, tactile and gustatory.

Hallucinogen: Chemical substance which can distort perceptions to induce delusions or hallucinations.

HIV: the human immunodeficiency virus, the causative agent of Acquired Immunodeficiency Syndrome (AIDS).

Illicit Drugs: Drugs, whose use, possession, or sale is illegal.

Illusions: misperception or misinterpretation of real external sensory stimuli.

Inhalant: Volatile substance that is commonly inhaled or huffed. E.g. include petrol, glue, thinners, etc.

Insight: ability of the patient to understand the true cause and meaning of a situation.

Intoxication: a transient condition following the administration of a psychoactive substance, resulting in disturbances in level of consciousness, cognition, perception, behaviour or affect, or other psychophysiological functions and responses.

Lapse: the initial (single) episode of substance use following a period of abstinence, synonymous with "slip."

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Mentally Ill Chemical Abuser (MICA)/ Men-tally Ill Substance Abuser (MISA)/ Chemical Abusing Mentally Ill (CAMI): Terms used to describe patients with a psychiatric disorder having a comorbid substance use disorder.

Methadone: A synthetically produced, long-acting opiate, commonly used as a maintenance agent to treat opioid dependence. This is likely to be available in our country soon.

Morphine: Major sedative and pain-relieving agent found naturally in opium.

Motivation: The internally generated state that stimulates us to act.

Narcotic: A substance having the power to produce a state of sleep or drowsiness and to relieve pain with the potential of producing dependence.

Nicotine: The main active ingredient of tobacco.

Opiates: Any of the psychoactive substances that originate from the opium poppy.

Opioid: Any chemical that has opiate like effects.

Over-the-Counter Drugs: Drugs, that are legally sold without a prescription. E.g. paracetamol, cough syrups, etc.

Placebo: A pharmacologically inert substance that may elicit a significant reaction entirely because of the mental set of the patient or the physical setting in which the drug is taken.

Prescription Drugs: A controlled drug available only by the order of a licensed physician.

Problem Drinking: An informal term describing a pattern of drinking associated with life problems. It is used broadly to describe harmful use of alcohol, including alcoholism.

Prognosis: The prospect of recovery as anticipated from the usual course of a disease.

Psychedelic: Substance producing an intensely pleasurable state of altered perception. E.g. LSD.

Psychoactive Substance: Any chemical substance that alters mood or behavior as a result of alterations in the functioning of the brain.

Psychological Dependence: A compulsion to use a substance for its pleasurable effects. Such dependence may lead to a compulsion to misuse it. A craving and compulsion to use a substance that is psychologically rather than physiologically based, e.g., compulsive gambling is a purely psychological dependence: a similar effect may come from substance use.

Psychosis: a psychological state characterized by hallucinations, delusions or disorganized behavior; impaired reality testing.

Psychotherapy: The treatment of emotional or behavioral problems by psychological means, often in one-to-one interviews or small groups by a trained specialist.

Psychotropic drug: A chemical which induces change primarily in some aspect(s) of mental functioning; for example, an antidepressant is meant to relieve mental depression.

Rehabilitate: To restore to effectiveness or normal life by training etc., esp. after imprisonment or illness.

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Relapse Prevention: A therapeutic process to help a person recovering from problem drug use to enable him to stay away from it. It involves changing his faulty behavior, thinking and lifestyle.

Relapse: Recurrence of substance use after a period of sobriety/ abstinence.

Reverse Tolerance: State produced by a particular substance, process, or individual, such that lower dosages of the same substance produce the same amount and quality of the desired or observed effect that previously was observed only with higher dosages.

Self-help Group: Group of individuals with similar problems that meets for the purpose of providing support and information to each other and for mutual problem solving; E.g. Alcoholics Anonymous.

Stimulant: Any of several substances that act on the central nervous system to produce excitation, alertness and wakefulness. Medical uses include the treatment of hyperkinetic disorder (ADHD) and narcolepsy. E.g. Amphetamine.

Syndrome: cluster of signs and symptoms occurring together. E.g. dependence syndrome.

Synergism: Effect of a combination of drugs taken simultaneously, which is greater than the sum of the effects of the same drugs when taken separately.

Therapeutic Community: Setting in which persons with similar problems meet and provide mutual support to help overcome those problems, with fairly structured rules, guidelines, etc. It is a residential program with emphasis on changing the individual's behavior and attitude to fit him into the society.

Tolerance: Condition in which a person must keep increasing the dosage of a substance to maintain the same effect. Tolerance develops to most psychoactive substances.

Tranquilizers:

Major – Substances used to relieve symptoms of severe psychosis (e.g. Haloperidol), currents Known as anti psychotics.

Minor – Substances with sedative and anti-anxiety effect (e.g. Diazepam); known as anxiolytics.

Withdrawal Syndrome: The onset of a predictable constellation of signs and symptoms following the abrupt discontinuation of, or rapid decrease in dosage of a psychoactive substance.

Substance Use Disorders

Manual for Paramedical Personnel

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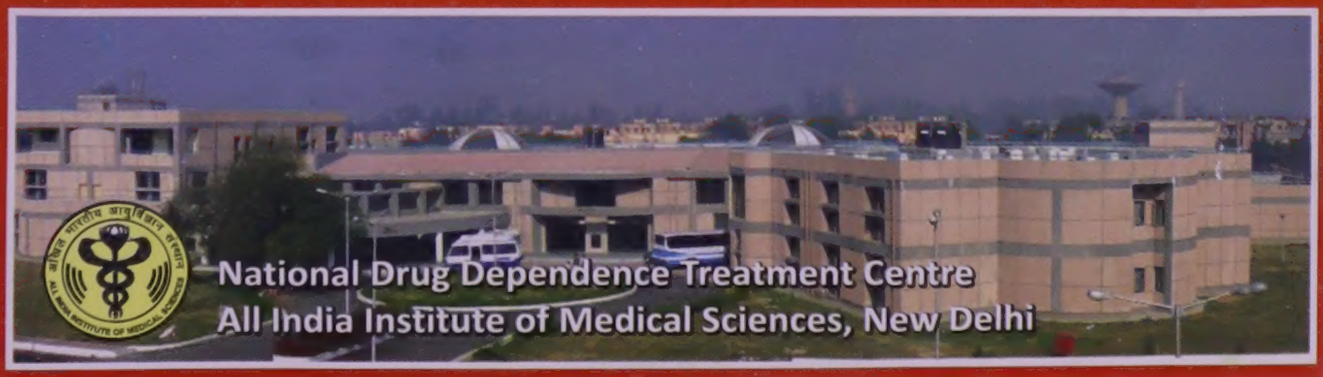

The National Drug Dependence Treatment Centre (NDDTC), AIIMS, with the support of Ministry of Health and Family Welfare (Drug De-addiction Programme-DDAP), Government of India has been involved in drug demand reduction activities by providing treatment services and developing a cadre of trained human resources in the country. NDDTC, AIIMS has developed a series of resource materials for various categories of staff, namely doctors and nurses in the past. However, there was no particular resource material for training paramedical professionals. In view of that, NDDTC, AIIMS has taken an initiative to develop this manual .

The chapters in the manual are written by the experts in the field, and covers the Introduction, Drug de-addiction programme, Health and social consequences of substance abuse, Assessment and diagnosis, Pharmacological and non pharmacological treatment, Relapse prevention and Role of paramedical staff. Various scales of assessment and list of de-addiciton centres in the country are appended.